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TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica St. Louis

13715 Rider Trail North

Earth City, MO 63045

Tel: (314)298-8566

TestAmerica Job ID: 160-13352-1

Client Project/Site: EPA RST2 - RFP No. 337

For:

Weston Solutions, Inc.

1090 King Georges Post Road, Suite 201

Edison, New Jersey 08837

Attn: Ms. Smita Sumbaly

Elizabeth M. Hoerchler

Authorized for release by:

8/27/2015 3:58:21 PM

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Cover Page	1
Table of Contents	2
Case Narrative	3
Chain of Custody	7
Receipt Checklists	14
Definitions/Glossary	15
Method Summary	16
Sample Summary	17
Client Sample Results	18
QC Sample Results	39
QC Association Summary	50
Tracer Carrier Summary	56

1
2
3
4
5
6
7
8
9
10
11
12

Case Narrative

Client: Weston Solutions, Inc.
Project/Site: EPA RST2 - RFP No. 337

TestAmerica Job ID: 160-13352-1

Job ID: 160-13352-1

Laboratory: TestAmerica St. Louis

Narrative

CASE NARRATIVE

Client: Weston Solutions, Inc.

Project: EPA RST2 - RFP No. 337

Report Number: 160-13352-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica St. Louis attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

All solid sample results for Chemistry analyses are reported on an "as received" basis unless otherwise indicated by the presence of a % solids value in the method header. All soil/sediment sample results for radiochemistry analyses are based upon sample as dried and disaggregated with the exception of tritium, carbon-14, and iodine-129 by gamma spectroscopy unless requested as wet weight by the client.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT

The samples were received on 08/14/2015; the samples arrived in good condition, properly preserved and on ice. The temperatures of the 4 coolers at receipt time were 3.2° C, 4.5° C, 4.7° C and 5.3° C.

TOTAL METALS (ICP)

Samples N001-SS001-1224-01 (160-13352-1), N001-SS002-1224-01 (160-13352-2), N001-SS003-0012-01 (160-13352-3), N001-SS004-0012-01 (160-13352-4), N001-SS005-1830-01 (160-13352-5), N001-SS006-0012-01 (160-13352-6), N001-SS007-0012-01 (160-13352-7), N002-SS001-0012-01 (160-13352-8), N002-SS002-0012-01 (160-13352-9), N002-SS003-0012-01 (160-13352-10), N002-SS004-0012-01 (160-13352-11), N002-SS005-0012-01 (160-13352-12), N002-SS006-2436-01 (160-13352-13), N002-TRENCH-0003-01 (160-13352-14), N003-SS001-1022-01 (160-13352-15), N003-SS002-2436-01 (160-13352-16), N003-SS003-1224-01 (160-13352-17) and N003-SS003-1224-02 (160-13352-18) were analyzed for total metals (ICP) in accordance with EPA SW-846 Method 6010C. The samples were prepared on 08/19/2015 and analyzed on 08/25/2015 and 08/26/2015.

The interference check standard solution (ICSA) associated with prep batch 206471 and analytical batch 160-207910 had results for chromium at a level greater than the absolute value of the RL. The associated sample results were 10x greater than the absolute value

Case Narrative

Client: Weston Solutions, Inc.
Project/Site: EPA RST2 - RFP No. 337

TestAmerica Job ID: 160-13352-1

Job ID: 160-13352-1 (Continued)

Laboratory: TestAmerica St. Louis (Continued)

detected in the ICSA; therefore the results will be reported. (ICSA 160-207910/8)

The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 160-206471 and analytical batch 160-207910 were outside control limits barium, potassium, antimony, sodium, and zinc. Sample matrix interference is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits. N003-SS003-1224-01 (160-13352-17[MS]) and N003-SS003-1224-01 (160-13352-17[MSD])

Due to the high concentration of aluminum, calcium, chromium, iron, magnesium, manganese, the matrix spike / matrix spike duplicate (MS/MSD) for preparation batch 160-206471 and analytical batch 160-207910 could not be evaluated for accuracy and precision. The associated laboratory control sample (LCS) met acceptance criteria. N003-SS003-1224-01 (160-13352-17[MS]) and N003-SS003-1224-01 (160-13352-17[MSD])

The following samples from preparation batch 160-206471 and analytical batch 160-207910 were diluted due to the nature of the sample matrix. The samples were high in salts, which cause internal standard and QC failures when the samples are run at a lesser dilution:
N001-SS001-1224-01 (160-13352-1), N001-SS002-1224-01 (160-13352-2), N001-SS003-0012-01 (160-13352-3), N001-SS004-0012-01 (160-13352-4), N001-SS005-1830-01 (160-13352-5), N001-SS006-0012-01 (160-13352-6), N001-SS007-0012-01 (160-13352-7),
N002-SS001-0012-01 (160-13352-8), N002-SS002-0012-01 (160-13352-9), N002-SS003-0012-01 (160-13352-10),
N002-SS004-0012-01 (160-13352-11), N002-SS005-0012-01 (160-13352-12), N002-SS006-2436-01 (160-13352-13),
N002-TRENCH-0003-01 (160-13352-14), N003-SS001-1022-01 (160-13352-15), N003-SS002-2436-01 (160-13352-16),
N003-SS003-1224-01 (160-13352-17), N003-SS003-1224-01 (160-13352-17[MS]), N003-SS003-1224-01 (160-13352-17[MSD]),
N003-SS003-1224-02 (160-13352-18) and (160-13352-B-17-A SD). Elevated reporting limits (RLs) are provided.

The following samples from preparation batch 160-206471 and analytical batch 160-208000 were diluted due to the nature of the sample matrix. The samples were high in salts, which cause internal standard and QC failures when the samples are run at a lesser dilution:
N001-SS002-1224-01 (160-13352-2), N001-SS003-0012-01 (160-13352-3), N001-SS004-0012-01 (160-13352-4), N001-SS005-1830-01 (160-13352-5), N001-SS006-0012-01 (160-13352-6), N001-SS007-0012-01 (160-13352-7),
N002-SS003-0012-01 (160-13352-10), N002-SS004-0012-01 (160-13352-11), N002-SS005-0012-01 (160-13352-12),
N002-SS006-2436-01 (160-13352-13) and N003-SS002-2436-01 (160-13352-16). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TOTAL METALS (ICP)

Samples RB-N-150811 (160-13352-19) and RB-N-150812 (160-13352-20) were analyzed for total metals (ICP) in accordance with EPA SW-846 Method 6010C. The samples were prepared on 08/17/2015 and analyzed on 08/19/2015 and 08/21/2015.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TOTAL MERCURY

Samples RB-N-150811 (160-13352-19) and RB-N-150812 (160-13352-20) were analyzed for total mercury in accordance with EPA SW-846 Methods 7470A. The samples were prepared on 08/18/2015 and 08/21/2015 and analyzed on 08/21/2015.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

MERCURY

Samples N001-SS001-1224-01 (160-13352-1), N001-SS002-1224-01 (160-13352-2), N001-SS003-0012-01 (160-13352-3),
N001-SS004-0012-01 (160-13352-4), N001-SS005-1830-01 (160-13352-5), N001-SS006-0012-01 (160-13352-6), N001-SS007-0012-01 (160-13352-7),
N002-SS001-0012-01 (160-13352-8), N002-SS002-0012-01 (160-13352-9), N002-SS003-0012-01 (160-13352-10),
N002-SS004-0012-01 (160-13352-11), N002-SS005-0012-01 (160-13352-12), N002-SS006-2436-01 (160-13352-13),
N002-TRENCH-0003-01 (160-13352-14), N003-SS001-1022-01 (160-13352-15), N003-SS002-2436-01 (160-13352-16),
N003-SS003-1224-01 (160-13352-17) and N003-SS003-1224-02 (160-13352-18) were analyzed for mercury in accordance with EPA SW-846 Method 7471B. The samples were prepared on 08/24/2015 and analyzed on 08/24/2015 and 08/25/2015.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

PERCENT SOLIDS

Case Narrative

Client: Weston Solutions, Inc.
Project/Site: EPA RST2 - RFP No. 337

TestAmerica Job ID: 160-13352-1

Job ID: 160-13352-1 (Continued)

Laboratory: TestAmerica St. Louis (Continued)

Samples N001-SS001-1224-01 (160-13352-1), N001-SS002-1224-01 (160-13352-2), N001-SS003-0012-01 (160-13352-3), N001-SS004-0012-01 (160-13352-4), N001-SS005-1830-01 (160-13352-5), N001-SS006-0012-01 (160-13352-6), N001-SS007-0012-01 (160-13352-7), N002-SS001-0012-01 (160-13352-8), N002-SS002-0012-01 (160-13352-9), N002-SS003-0012-01 (160-13352-10), N002-SS004-0012-01 (160-13352-11), N002-SS005-0012-01 (160-13352-12), N002-SS006-2436-01 (160-13352-13), N002-TRENCH-0003-01 (160-13352-14), N003-SS001-1022-01 (160-13352-15), N003-SS002-2436-01 (160-13352-16), N003-SS003-1224-01 (160-13352-17) and N003-SS003-1224-02 (160-13352-18) were analyzed for percent solids in accordance with EPA Method 160.3 MOD. The samples were analyzed on 08/20/2015.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

ISOTOPIC THORIUM (ALPHA SPECTROMETRY)

Samples N001-SS001-1224-01 (160-13352-1), N001-SS002-1224-01 (160-13352-2), N001-SS003-0012-01 (160-13352-3), N001-SS004-0012-01 (160-13352-4), N001-SS005-1830-01 (160-13352-5), N001-SS006-0012-01 (160-13352-6), N001-SS007-0012-01 (160-13352-7), N002-SS001-0012-01 (160-13352-8), N002-SS002-0012-01 (160-13352-9), N002-SS003-0012-01 (160-13352-10), N002-SS004-0012-01 (160-13352-11), N002-SS005-0012-01 (160-13352-12), N002-SS006-2436-01 (160-13352-13), N002-TRENCH-0003-01 (160-13352-14), N003-SS001-1022-01 (160-13352-15), N003-SS002-2436-01 (160-13352-16), N003-SS003-1224-01 (160-13352-17) and N003-SS003-1224-02 (160-13352-18) were analyzed for Isotopic Thorium (Alpha Spectrometry) in accordance with DOE A01R_Th. The samples were dried on 08/15/2015, prepared on 08/17/2015 and analyzed on 08/20/2015.

Thorium Prep Batch: 206002

The matrix spike (MS) has a thorium-230 recovery (120%) above the QC limits (76-115%). Sample matrix interference is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits demonstrating acceptable sample preparation and instrument performance. (See non-conformance memo 160-65795) The data have been qualified and reported.

N001-SS001-1224-01 (160-13352-1), N001-SS002-1224-01 (160-13352-2), N001-SS003-0012-01 (160-13352-3), N001-SS004-0012-01 (160-13352-4), N001-SS005-1830-01 (160-13352-5), N001-SS006-0012-01 (160-13352-6), N001-SS007-0012-01 (160-13352-7), N002-SS001-0012-01 (160-13352-8), N002-SS002-0012-01 (160-13352-9), N002-SS003-0012-01 (160-13352-10), N002-SS004-0012-01 (160-13352-11), N002-SS005-0012-01 (160-13352-12), N002-SS006-2436-01 (160-13352-13), N002-TRENCH-0003-01 (160-13352-14), N003-SS001-1022-01 (160-13352-15), N003-SS002-2436-01 (160-13352-16), N003-SS003-1224-01 (160-13352-17), N003-SS003-1224-01 (160-13352-17[MS]), N003-SS003-1224-01 (160-13352-17[MSD]), N003-SS003-1224-02 (160-13352-18), (LCS 160-206002/2-A) and (MB 160-206002/1-A)

Thorium Prep Batch: 206002

The samples contain rocks and are non homogeneous. Sample 13352-14 appeared slightly oily. N001-SS001-1224-01 (160-13352-1), N001-SS002-1224-01 (160-13352-2), N001-SS003-0012-01 (160-13352-3), N001-SS004-0012-01 (160-13352-4), N001-SS005-1830-01 (160-13352-5), N001-SS006-0012-01 (160-13352-6), N001-SS007-0012-01 (160-13352-7), N002-SS001-0012-01 (160-13352-8), N002-SS002-0012-01 (160-13352-9), N002-SS003-0012-01 (160-13352-10), N002-SS004-0012-01 (160-13352-11), N002-SS005-0012-01 (160-13352-12), N002-SS006-2436-01 (160-13352-13), N002-TRENCH-0003-01 (160-13352-14), N003-SS001-1022-01 (160-13352-15), N003-SS002-2436-01 (160-13352-16), N003-SS003-1224-01 (160-13352-17), N003-SS003-1224-01 (160-13352-17[MS]), N003-SS003-1224-01 (160-13352-17[MSD]) and N003-SS003-1224-02 (160-13352-18)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

ISOTOPIC THORIUM (ALPHA SPECTROMETRY)

Samples RB-N-150811 (160-13352-19) and RB-N-150812 (160-13352-20) were analyzed for Isotopic Thorium (Alpha Spectrometry) in accordance with DOE. The samples were prepared on 08/17/2015 and analyzed on 08/20/2015.

Thorium Prep Batch: 206043

Due to insufficient sample, a laboratory control sample, and laboratory control sample duplicate were used instead of a sample duplicate. RB-N-150811 (160-13352-19) and RB-N-150812 (160-13352-20)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

ISOTOPIC URANIUM (ALPHA SPECTROMETRY)

Samples N001-SS001-1224-01 (160-13352-1), N001-SS002-1224-01 (160-13352-2), N001-SS003-0012-01 (160-13352-3),

Case Narrative

Client: Weston Solutions, Inc.
Project/Site: EPA RST2 - RFP No. 337

TestAmerica Job ID: 160-13352-1

Job ID: 160-13352-1 (Continued)

Laboratory: TestAmerica St. Louis (Continued)

N001-SS004-0012-01 (160-13352-4), N001-SS005-1830-01 (160-13352-5), N001-SS006-0012-01 (160-13352-6), N001-SS007-0012-01 (160-13352-7), N002-SS001-0012-01 (160-13352-8), N002-SS002-0012-01 (160-13352-9), N002-SS003-0012-01 (160-13352-10), N002-SS004-0012-01 (160-13352-11), N002-SS005-0012-01 (160-13352-12), N002-SS006-2436-01 (160-13352-13), N002-TRENCH-0003-01 (160-13352-14), N003-SS001-1022-01 (160-13352-15), N003-SS002-2436-01 (160-13352-16), N003-SS003-1224-01 (160-13352-17) and N003-SS003-1224-02 (160-13352-18) were analyzed for Isotopic Uranium (Alpha Spectrometry) in accordance with DOE. The samples were dried on 08/15/2015, prepared on 08/17/2015 and analyzed on 08/20/2015.

Uranium Prep Batch: 206252

The samples contain rocks and are non homogeneous. Sample 13352-14 appeared slightly oily. N001-SS001-1224-01 (160-13352-1), N001-SS002-1224-01 (160-13352-2), N001-SS003-0012-01 (160-13352-3), N001-SS004-0012-01 (160-13352-4), N001-SS005-1830-01 (160-13352-5), N001-SS006-0012-01 (160-13352-6), N001-SS007-0012-01 (160-13352-7), N002-SS001-0012-01 (160-13352-8), N002-SS002-0012-01 (160-13352-9), N002-SS003-0012-01 (160-13352-10), N002-SS004-0012-01 (160-13352-11), N002-SS005-0012-01 (160-13352-12), N002-SS006-2436-01 (160-13352-13), N002-TRENCH-0003-01 (160-13352-14), N003-SS001-1022-01 (160-13352-15), N003-SS002-2436-01 (160-13352-16), N003-SS003-1224-01 (160-13352-17), N003-SS003-1224-01 (160-13352-17[MS]), N003-SS003-1224-01 (160-13352-17[MSD]) and N003-SS003-1224-02 (160-13352-18)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

ISOTOPIC URANIUM (ALPHA SPECTROMETRY)

Samples RB-N-150811 (160-13352-19) and RB-N-150812 (160-13352-20) were analyzed for Isotopic Uranium (Alpha Spectrometry) in accordance with DOE. The samples were prepared on 08/17/2015 and analyzed on 08/20/2015.

Prep Batch: 206044

Due to insufficient sample, a laboratory control sample, and laboratory control sample duplicate were used instead of a sample duplicate. RB-N-150811 (160-13352-19) and RB-N-150812 (160-13352-20)

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

CESIUM-137 & OTHER GAMMA EMITTERS (GS)

Samples RB-N-150811 (160-13352-19) and RB-N-150812 (160-13352-20) were analyzed for Cesium-137 & Other Gamma Emitters (GS) in accordance with DOE. The samples were prepared and analyzed on 08/19/2015.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

USEPA

Date Shipped: 8/13/2015

Carrier Name: FedEx

Airbill No: 8037 9662 5956

CHAIN OF CUSTODY RECORD

Case #: 337

No: 2-081315-172456-0001

Cooler #: 1

Lab: TestAmerica Laboratories, Inc. - St.
Louis

Lab Phone: 314-298-8566

Contact Name: Joel Petty

Contact Phone: 732-570-4943

Lab #	Sample #	Analyses	Matrix	Collected	Sample Time	Numb Cont	Container	Preservative	Lab QC
1	N001-SS001-1224-01	Mercury	Soil	8/11/2015	13:55	1	2 oz glass jar	4 C	N
	N001-SS001-1224-01	Isotopic Thorium	Soil	8/11/2015	13:55	1	2 oz glass jar	4 C	N
	N001-SS001-1224-01	Isotopic Uranium	Soil	8/11/2015	13:55	1	2 oz glass jar	4 C	N
	N001-SS001-1224-01	Gamma Spectroscopy	Soil	8/11/2015	13:55	1	32 oz glass jar	4 C	N
	N001-SS001-1224-01	TAL Metals	Soil	8/11/2015	13:55	1	2 oz glass jar	4 C	N
2	N001-SS002-1224-01	TAL Metals	Soil	8/11/2015	14:21	1	2 oz glass jar	4 C	N
	N001-SS002-1224-01	Mercury	Soil	8/11/2015	14:21	1	2 oz glass jar	4 C	N
	N001-SS002-1224-01	Isotopic Thorium	Soil	8/11/2015	14:21	1	2 oz glass jar	4 C	N
	N001-SS002-1224-01	Isotopic Uranium	Soil	8/11/2015	14:21	1	2 oz glass jar	4 C	N
	N001-SS002-1224-01	Gamma Spectroscopy	Soil	8/11/2015	14:21	1	32 oz glass jar	4 C	N
3	N001-SS003-0012-01	Mercury	Soil	8/11/2015	14:50	1	2 oz glass jar	4 C	N
	N001-SS003-0012-01	Gamma Spectroscopy	Soil	8/11/2015	14:50	1	32 oz glass jar	4 C	N
	N001-SS003-0012-01	Isotopic Thorium	Soil	8/11/2015	14:50	1	2 oz glass jar	4 C	N
	N001-SS003-0012-01	TAL Metals	Soil	8/11/2015	14:50	1	2 oz glass jar	4 C	N
	N001-SS003-0012-01	Isotopic Uranium	Soil	8/11/2015	14:50	1	2 oz glass jar	4 C	N
4	N001-SS004-0012-01	TAL Metals	Soil	8/11/2015	15:00	1	2 oz glass jar	4 C	N
	N001-SS004-0012-01	Mercury	Soil	8/11/2015	15:00	1	2 oz glass jar	4 C	N
	N001-SS004-0012-01	Isotopic Thorium	Soil	8/11/2015	15:00	1	2 oz glass jar	4 C	N

Special Instructions: Results for Radium-226 and Radium-228 analyzed via gamma spectroscopy should be reported separately for soil samples. Large fragments in many samples, please include fragments as part of sample. Email results to s.sumbaly@westonsolutions.com and joel.petty@westonsolutions.com. RFP 337, PO 0089248

SAMPLES TRANSFERRED FROM

CHAIN OF CUSTODY

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt
all samples all analyses	Joel Petty RST3	8/13/15 19:00	Jill Clark TA SP	1325 8.14.15	



160-13352 Chain of Custody

USEPA

Date Shipped: 8/13/2015

Carrier Name: FedEx

Airbill No: 8037 9662 5956

CHAIN OF CUSTODY RECORD

Case #: 337

No: 2-081315-172456-0001

Cooler #: 1

Contact Name: Joel Petty

Lab: TestAmerica Laboratories, Inc. - St.
Louis

Contact Phone: 732-570-4943

Lab Phone: 314-298-8566

Lab #	Sample #	Analyses	Matrix	Collected	Sample Time	Numb Cont	Container	Preservative	Lab QC
	N001-SS004-0012-01	Isotopic Uranium	Soil	8/11/2015	15:00	1	2 oz glass jar	4 C	N
	N001-SS004-0012-01	Gamma Spectroscopy	Soil	8/11/2015	15:00	1	32 oz glass jar	4 C	N
5	N001-SS005-1830-01	Isotopic Uranium	Soil	8/11/2015	15:26	1	2 oz glass jar	4 C	N
	N001-SS005-1830-01	Gamma Spectroscopy	Soil	8/11/2015	15:26	1	32 oz glass jar	4 C	N
	N001-SS005-1830-01	TAL Metals	Soil	8/11/2015	15:26	1	2 oz glass jar	4 C	N
	N001-SS005-1830-01	Mercury	Soil	8/11/2015	15:26	1	2 oz glass jar	4 C	N
	N001-SS005-1830-01	Isotopic Thorium	Soil	8/11/2015	15:26	1	2 oz glass jar	4 C	N
6	N001-SS006-0012-01	Gamma Spectroscopy	Soil	8/12/2015	15:30	1	32 oz glass jar	4 C	N
	N001-SS006-0012-01	Isotopic Uranium	Soil	8/12/2015	15:30	1	2 oz glass jar	4 C	N
	N001-SS006-0012-01	Isotopic Thorium	Soil	8/12/2015	15:30	1	2 oz glass jar	4 C	N
	N001-SS006-0012-01	Mercury	Soil	8/12/2015	15:30	1	2 oz glass jar	4 C	N
	N001-SS006-0012-01	TAL Metals	Soil	8/12/2015	15:30	1	2 oz glass jar	4 C	N
7	N001-SS007-0012-01	Isotopic Uranium	Soil	8/12/2015	15:15	1	2 oz glass jar	4 C	N
	N001-SS007-0012-01	Mercury	Soil	8/12/2015	15:15	1	2 oz glass jar	4 C	N
	N001-SS007-0012-01	Isotopic Thorium	Soil	8/12/2015	15:15	1	2 oz glass jar	4 C	N
	N001-SS007-0012-01	TAL Metals	Soil	8/12/2015	15:15	1	2 oz glass jar	4 C	N
	N001-SS007-0012-01	Gamma Spectroscopy	Soil	8/12/2015	15:15	1	32 oz glass jar	4 C	N
8	N002-SS001-0012-01	TAL Metals	Soil	8/11/2015	13:10	1	2 oz glass jar	4 C	N

Special Instructions: Results for Radium-226 and Radium-228 analyzed via gamma spectroscopy should be reported separately for soil samples. Large fragments in many samples, please include fragments as part of sample. Email results to s.sumbaly@westonsolutions.com and joel.petty@westonsolutions.com. RFP 337, PO 0089248

SAMPLES TRANSFERRED FROM

CHAIN OF CUSTODY

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt
all samples all analyses	Joel Petty RST3	8/13/15 1900	Gill Clarke TA STL	8/14/15	

USEPA

Date Shipped: 8/13/2015

Carrier Name: FedEx

Airbill No: 8037 9662 5956

CHAIN OF CUSTODY RECORD

Case #: 337

No: 2-081315-172456-0001

Cooler #: 1

Lab: TestAmerica Laboratories, Inc. - St.
Louis

Lab Phone: 314-298-8566

Contact Name: Joel Petty

Contact Phone: 732-570-4943

Lab #	Sample #	Analyses	Matrix	Collected	Sample Time	Numb Cont	Container	Preservative	Lab QC
	N002-SS001-0012-01	Gamma Spectroscopy	Soil	8/11/2015	13:10	1	32 oz glass jar	4 C	N
	N002-SS001-0012-01	Isotopic Uranium	Soil	8/11/2015	13:10	1	2 oz glass jar	4 C	N
	N002-SS001-0012-01	Isotopic Thorium	Soil	8/11/2015	13:10	1	2 oz glass jar	4 C	N
	N002-SS001-0012-01	Mercury	Soil	8/11/2015	13:10	1	2 oz glass jar	4 C	N
9	N002-SS002-0012-01	Isotopic Uranium	Soil	8/11/2015	13:30	1	2 oz glass jar	4 C	N
	N002-SS002-0012-01	Isotopic Thorium	Soil	8/11/2015	13:30	1	2 oz glass jar	4 C	N
	N002-SS002-0012-01	Mercury	Soil	8/11/2015	13:30	1	2 oz glass jar	4 C	N
	N002-SS002-0012-01	TAL Metals	Soil	8/11/2015	13:30	1	2 oz glass jar	4 C	N
	N002-SS002-0012-01	Gamma Spectroscopy	Soil	8/11/2015	13:30	1	32 oz glass jar	4 C	N
10	N002-SS003-0012-01	Mercury	Soil	8/11/2015	16:45	1	2 oz glass jar	4 C	N
	N002-SS003-0012-01	Gamma Spectroscopy	Soil	8/11/2015	16:45	1	32 oz glass jar	4 C	N
	N002-SS003-0012-01	Isotopic Thorium	Soil	8/11/2015	16:45	1	2 oz glass jar	4 C	N
	N002-SS003-0012-01	TAL Metals	Soil	8/11/2015	16:45	1	2 oz glass jar	4 C	N
	N002-SS003-0012-01	Isotopic Uranium	Soil	8/11/2015	16:45	1	2 oz glass jar	4 C	N
<hr/>									
									

Special Instructions: Results for Radium-226 and Radium-228 analyzed via gamma spectroscopy should be reported separately for soil samples. Large fragments in many samples, please include fragments as part of sample. Email results to s.sumbaly@westonsolutions.com and joel.petty@westonsolutions.com. RFP 337, PO 0089248

SAMPLES TRANSFERRED FROM

CHAIN OF CUSTODY

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt
all samples all analyses	Joel Petty RST3	8/13/15 19:00	Joe Clarke TA STL	8-14-15 1325	

USEPA

Date Shipped: 8/13/2015

Carrier Name: FedEx

Airbill No: 8037 9662 5956

CHAIN OF CUSTODY RECORD

Case #: 337

No: 2-081315-180955-0002

Cooler #: 2

Lab: TestAmerica Laboratories, Inc. - St.
Louis

Lab Phone: 314-298-8566

Contact Name: Joel Petty

Contact Phone: 732-570-4943

Lab #	Sample #	Analyses	Matrix	Collected	Sample Time	Numb Cont	Container	Preservative	Lab QC
11	N002-SS004-0012-01	TAL Metals	Soil	8/11/2015	17:00	1	2 oz glass jar	4 C	N
	N002-SS004-0012-01	Mercury	Soil	8/11/2015	17:00	1	2 oz glass jar	4 C	N
	N002-SS004-0012-01	Isotopic Thorium	Soil	8/11/2015	17:00	1	2 oz glass jar	4 C	N
	N002-SS004-0012-01	Isotopic Uranium	Soil	8/11/2015	17:00	1	2 oz glass jar	4 C	N
	N002-SS004-0012-01	Gamma Spectroscopy	Soil	8/11/2015	17:00	1	32 oz glass jar	4 C	N
12	N002-SS005-0012-01	Mercury	Soil	8/11/2015	15:58	1	2 oz glass jar	4 C	N
	N002-SS005-0012-01	Gamma Spectroscopy	Soil	8/11/2015	15:58	1	32 oz glass jar	4 C	N
	N002-SS005-0012-01	Isotopic Thorium	Soil	8/11/2015	15:58	1	2 oz glass jar	4 C	N
	N002-SS005-0012-01	TAL Metals	Soil	8/11/2015	15:58	1	2 oz glass jar	4 C	N
	N002-SS005-0012-01	Isotopic Uranium	Soil	8/11/2015	15:58	1	2 oz glass jar	4 C	N
13	N002-SS006-2436-01	TAL Metals	Soil	8/11/2015	16:25	1	2 oz glass jar	4 C	N
	N002-SS006-2436-01	Mercury	Soil	8/11/2015	16:25	1	2 oz glass jar	4 C	N
	N002-SS006-2436-01	Isotopic Thorium	Soil	8/11/2015	16:25	1	2 oz glass jar	4 C	N
	N002-SS006-2436-01	Isotopic Uranium	Soil	8/11/2015	16:25	1	2 oz glass jar	4 C	N
	N002-SS006-2436-01	Gamma Spectroscopy	Soil	8/11/2015	16:25	1	32 oz glass jar	4 C	N
14	N002-TRENCH-0003-01	TAL Metals	Soil	8/13/2015	08:05	1	2 oz glass jar	4 C	N
	N002-TRENCH-0003-01	Mercury	Soil	8/13/2015	08:05	1	2 oz glass jar	4 C	N
	N002-TRENCH-0003-01	Isotopic Thorium	Soil	8/13/2015	08:05	1	2 oz glass jar	4 C	N

Special Instructions: Results for Radium-226 and Radium-228 analyzed via gamma spectroscopy should be reported separately for soil samples. Large fragments in many samples, please include fragments as part of sample. Email results to s.sumbaly@westonsolutions.com and joel.petty@westonsolutions.com. RFP 337, PO 0089248

SAMPLES TRANSFERRED FROM

CHAIN OF CUSTODY

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt
all samples all analyses	J. Petty RST3	8/13/15 19:00	Jill Clarke TA 52	1325 8.14.15	

USEPA

Date Shipped: 8/13/2015

Carrier Name: FedEx

Airbill No: 8037 9662 5956

CHAIN OF CUSTODY RECORD

Case #: 337

No: 2-081315-180955-0002

Cooler #: 2

Lab: TestAmerica Laboratories, Inc. - St.
Louis

Lab Phone: 314-298-8566

Contact Name: Joel Petty

Contact Phone: 732-570-4943

Lab #	Sample #	Analyses	Matrix	Collected	Sample Time	Numb Cont	Container	Preservative	Lab QC
	N002-TRENCH-0003-01	Gamma Spectroscopy	Soil	8/13/2015	08:05	1	32 oz glass jar	4 C	N
	N002-TRENCH-0003-01	Isotopic Uranium	Soil	8/13/2015	08:05	1	2 oz glass jar	4 C	N
15	N003-SS001-1022-01	Gamma Spectroscopy	Soil	8/11/2015	11:30	1	32 oz glass jar	4 C	N
	N003-SS001-1022-01	Mercury	Soil	8/11/2015	11:30	1	2 oz glass jar	4 C	N
	N003-SS001-1022-01	TAL Metals	Soil	8/11/2015	11:30	1	2 oz glass jar	4 C	N
	N003-SS001-1022-01	Isotopic Uranium	Soil	8/11/2015	11:30	1	2 oz glass jar	4 C	N
	N003-SS001-1022-01	Isotopic Thorium	Soil	8/11/2015	11:30	1	2 oz glass jar	4 C	N
16	N003-SS002-2436-01	Mercury	Soil	8/11/2015	11:45	1	2 oz glass jar	4 C	N
	N003-SS002-2436-01	Isotopic Thorium	Soil	8/11/2015	11:45	1	2 oz glass jar	4 C	N
	N003-SS002-2436-01	Isotopic Uranium	Soil	8/11/2015	11:45	1	2 oz glass jar	4 C	N
	N003-SS002-2436-01	Gamma Spectroscopy	Soil	8/11/2015	11:45	1	32 oz glass jar	4 C	N
	N003-SS002-2436-01	TAL Metals	Soil	8/11/2015	11:45	1	2 oz glass jar	4 C	N
17	N003-SS003-1224-01	Mercury	Soil	8/11/2015	12:30	2	2 oz glass jar	4 C	Y
	N003-SS003-1224-01	Gamma Spectroscopy	Soil	8/11/2015	12:30	2	32 oz glass jar	4 C	Y
	N003-SS003-1224-01	Isotopic Thorium	Soil	8/11/2015	12:30	2	2 oz glass jar	4 C	Y
	N003-SS003-1224-01	TAL Metals	Soil	8/11/2015	12:30	2	2 oz glass jar	4 C	Y
	N003-SS003-1224-01	Isotopic Uranium	Soil	8/11/2015	12:30	2	2 oz glass jar	4 C	Y
18	N003-SS003-1224-02	TAL Metals	Soil	8/11/2015	12:30	1	2 oz glass jar	4 C	N

Special Instructions: Results for Radium-226 and Radium-228 analyzed via gamma spectroscopy should be reported separately for soil samples. Large fragments in many samples, please include fragments as part of sample. Email results to s.sumbaly@westonsolutions.com and joel.petty@westonsolutions.com. RFP 337, PO 0089248

SAMPLES TRANSFERRED FROM

CHAIN OF CUSTODY

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt
all samples all analyses	Joel Petty RST3	8/13/15 1900	Jill Clarke TAST	8/14/15 1325	

USEPA

Date Shipped: 8/13/2015

Carrier Name: FedEx

Airbill No: 8037 9662 5956

CHAIN OF CUSTODY RECORD

Case #: 337

No: 2-081315-180955-0002

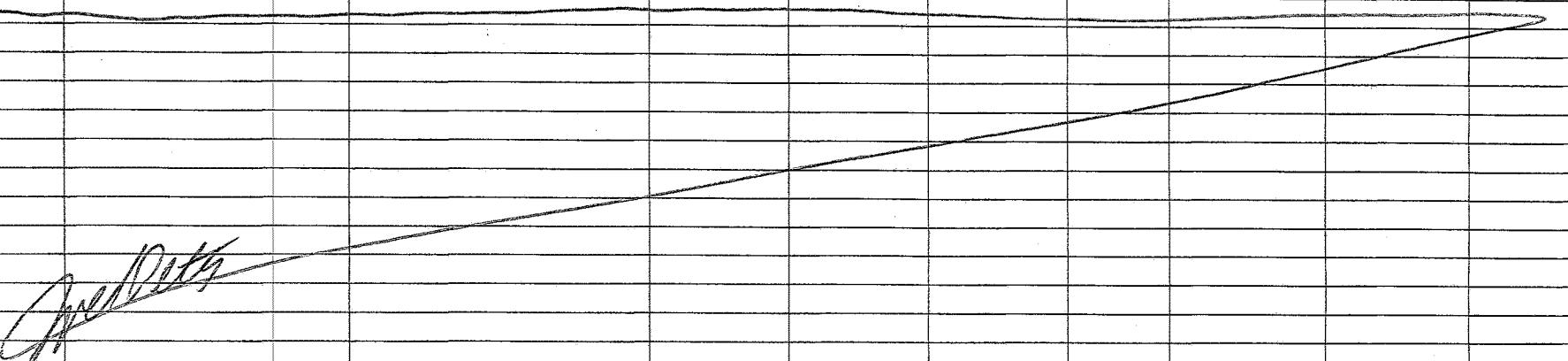
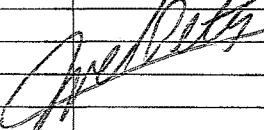
Cooler #: 2

Lab: TestAmerica Laboratories, Inc. - St.
Louis

Lab Phone: 314-298-8566

Contact Name: Joel Petty

Contact Phone: 732-570-4943

Lab #	Sample #	Analyses	Matrix	Collected	Sample Time	Numb Cont	Container	Preservative	Lab QC
	N003-SS003-1224-02	Mercury	Soil	8/11/2015	12:30	1	2 oz glass jar	4 C	N
	N003-SS003-1224-02	Isotopic Thorium	Soil	8/11/2015	12:30	1	2 oz glass jar	4 C	N
	N003-SS003-1224-02	Isotopic Uranium	Soil	8/11/2015	12:30	1	2 oz glass jar	4 C	N
	N003-SS003-1224-02	Gamma Spectroscopy	Soil	8/11/2015	12:30	1	32 oz glass jar	4 C	N
									
									

USEPA

Date Shipped: 8/13/2015

Carrier Name: FedEx

Airbill No: 8037 9662 5956

CHAIN OF CUSTODY RECORD

Case #: 337

No: 2-081315-181116-0003

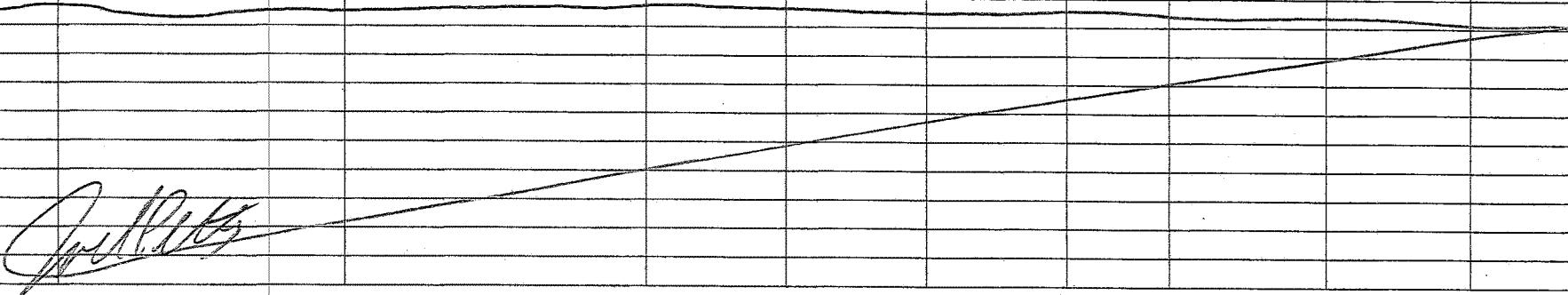
Cooler #: 3

Lab: TestAmerica Laboratories, Inc. - St.
Louis

Lab Phone: 314-298-8566

Contact Name: Joel Petty

Contact Phone: 732-570-4943

Lab #	Sample #	Analyses	Matrix	Collected	Sample Time	Numb Cont	Container	Preservative	Lab QC
19	RB-N-150811	TAL Metals + Hg	DI Water	8/11/2015	19:30	1	1 L poly	HNO3 pH<2	N
	RB-N-150811	Isotopic Thorium and Uranium	DI Water	8/11/2015	19:30	1	1 L poly	HNO3 pH<2	N
	RB-N-150811	Gamma Spectroscopy	DI Water	8/11/2015	19:30	1	1 L poly	HNO3 pH<2	N
	RB-N-150811	Radium 226/228	DI Water	8/11/2015	19:30	1	1 L poly	HNO3 pH<2	N
20	RB-N-150812	TAL Metals + Hg	DI Water	8/12/2015	15:45	1	1 L poly	HNO3 pH<2	N
	RB-N-150812	Isotopic Thorium and Uranium	DI Water	8/12/2015	15:45	1	1 L poly	HNO3 pH<2	N
	RB-N-150812	Gamma Spectroscopy	DI Water	8/12/2015	15:45	1	1 L poly	HNO3 pH<2	N
	RB-N-150812	Radium 226/228	DI Water	8/12/2015	15:45	1	1 L poly	HNO3 pH<2	N
									

Special Instructions: Results for Radium-226 and Radium-228 analyzed via gamma spectroscopy should be reported separately for soil samples. Large fragments in many samples, please include fragments as part of sample. Email results to s.sumbaly@westonsolutions.com and joel.petty@westonsolutions.com. RFP 337, PO 0089248

SAMPLES TRANSFERRED FROM

CHAIN OF CUSTODY

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt
all samples all analytes	Joel Petty RS13	8/13/15 1900	Jim Clark TASTC	8-14-15 1325	

Login Sample Receipt Checklist

Client: Weston Solutions, Inc.

Job Number: 160-13352-1

Login Number: 13352

List Source: TestAmerica St. Louis

List Number: 1

Creator: Clarke, Jill C

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Definitions/Glossary

Client: Weston Solutions, Inc.
Project/Site: EPA RST2 - RFP No. 337

TestAmerica Job ID: 160-13352-1

Qualifiers

Metals

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
F1	MS and/or MSD Recovery is outside acceptance limits.
F2	MS/MSD RPD exceeds control limits
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.

Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.
F1	MS and/or MSD Recovery is outside acceptance limits.

Glossary

Abbreviation

These commonly used abbreviations may or may not be present in this report.

¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Method Summary

Client: Weston Solutions, Inc.
Project/Site: EPA RST2 - RFP No. 337

TestAmerica Job ID: 160-13352-1

Method	Method Description	Protocol	Laboratory
6010C	Metals (ICP)	SW846	TAL SL
7470A	Mercury (CVAA)	SW846	TAL SL
7471B	Mercury (CVAA)	SW846	TAL SL
Moisture	Percent Moisture	EPA	TAL SL
A-01-R	Isotopic Thorium (Alpha Spectrometry)	DOE	TAL SL
A-01-R	Isotopic Uranium (Alpha Spectrometry)	DOE	TAL SL
GA-01-R	Cesium-137 & Other Gamma Emitters (GS)	DOE	TAL SL

Protocol References:

DOE = U.S. Department of Energy

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL SL = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Sample Summary

Client: Weston Solutions, Inc.

Project/Site: EPA RST2 - RFP No. 337

TestAmerica Job ID: 160-13352-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
160-13352-1	N001-SS001-1224-01	Solid	08/11/15 13:55	08/14/15 13:25
160-13352-2	N001-SS002-1224-01	Solid	08/11/15 14:21	08/14/15 13:25
160-13352-3	N001-SS003-0012-01	Solid	08/11/15 14:50	08/14/15 13:25
160-13352-4	N001-SS004-0012-01	Solid	08/11/15 15:00	08/14/15 13:25
160-13352-5	N001-SS005-1830-01	Solid	08/11/15 15:26	08/14/15 13:25
160-13352-6	N001-SS006-0012-01	Solid	08/12/15 15:30	08/14/15 13:25
160-13352-7	N001-SS007-0012-01	Solid	08/12/15 15:15	08/14/15 13:25
160-13352-8	N002-SS001-0012-01	Solid	08/11/15 13:10	08/14/15 13:25
160-13352-9	N002-SS002-0012-01	Solid	08/11/15 13:30	08/14/15 13:25
160-13352-10	N002-SS003-0012-01	Solid	08/11/15 16:45	08/14/15 13:25
160-13352-11	N002-SS004-0012-01	Solid	08/11/15 17:00	08/14/15 13:25
160-13352-12	N002-SS005-0012-01	Solid	08/11/15 15:58	08/14/15 13:25
160-13352-13	N002-SS006-2436-01	Solid	08/11/15 16:25	08/14/15 13:25
160-13352-14	N002-TRENCH-0003-01	Solid	08/13/15 08:05	08/14/15 13:25
160-13352-15	N003-SS001-1022-01	Solid	08/11/15 11:30	08/14/15 13:25
160-13352-16	N003-SS002-2436-01	Solid	08/11/15 11:45	08/14/15 13:25
160-13352-17	N003-SS003-1224-01	Solid	08/11/15 12:30	08/14/15 13:25
160-13352-18	N003-SS003-1224-02	Solid	08/11/15 12:30	08/14/15 13:25
160-13352-19	RB-N-150811	Water	08/11/15 19:30	08/14/15 13:25
160-13352-20	RB-N-150812	Water	08/12/15 15:45	08/14/15 13:25

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: EPA RST2 - RFP No. 337

TestAmerica Job ID: 160-13352-1

Client Sample ID: N001-SS001-1224-01

Lab Sample ID: 160-13352-1

Date Collected: 08/11/15 13:55

Matrix: Solid

Date Received: 08/14/15 13:25

Percent Solids: 83.2

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	12000		230	50	mg/Kg	✉	08/19/15 10:28	08/25/15 15:39	10
Antimony	ND		12	3.6	mg/Kg	✉	08/19/15 10:28	08/25/15 15:39	10
Arsenic	ND		12	2.8	mg/Kg	✉	08/19/15 10:28	08/25/15 15:39	10
Barium	81	B	58	1.3	mg/Kg	✉	08/19/15 10:28	08/25/15 15:39	10
Beryllium	ND		5.8	0.88	mg/Kg	✉	08/19/15 10:28	08/25/15 15:39	10
Cadmium	0.47	J	5.8	0.40	mg/Kg	✉	08/19/15 10:28	08/25/15 15:39	10
Calcium	54000		2900	79	mg/Kg	✉	08/19/15 10:28	08/25/15 15:39	10
Chromium	1300	B	12	1.6	mg/Kg	✉	08/19/15 10:28	08/25/15 15:39	10
Cobalt	10	J	58	1.7	mg/Kg	✉	08/19/15 10:28	08/25/15 15:39	10
Copper	55		29	2.9	mg/Kg	✉	08/19/15 10:28	08/25/15 15:39	10
Iron	14000		120	23	mg/Kg	✉	08/19/15 10:28	08/25/15 15:39	10
Lead	45		12	1.5	mg/Kg	✉	08/19/15 10:28	08/25/15 15:39	10
Magnesium	17000		1200	37	mg/Kg	✉	08/19/15 10:28	08/25/15 15:39	10
Manganese	520		12	0.94	mg/Kg	✉	08/19/15 10:28	08/25/15 15:39	10
Nickel	21	J	47	1.4	mg/Kg	✉	08/19/15 10:28	08/25/15 15:39	10
Potassium	ND		5800	850	mg/Kg	✉	08/19/15 10:28	08/25/15 15:39	10
Selenium	ND		18	2.4	mg/Kg	✉	08/19/15 10:28	08/25/15 15:39	10
Silver	ND		12	0.82	mg/Kg	✉	08/19/15 10:28	08/25/15 15:39	10
Sodium	3000	B	1200	89	mg/Kg	✉	08/19/15 10:28	08/25/15 15:39	10
Thallium	ND		23	2.2	mg/Kg	✉	08/19/15 10:28	08/25/15 15:39	10
Vanadium	30	J	58	5.9	mg/Kg	✉	08/19/15 10:28	08/25/15 15:39	10
Zinc	110		58	6.6	mg/Kg	✉	08/19/15 10:28	08/25/15 15:39	10

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.32		0.035	0.012	mg/Kg	✉	08/24/15 14:02	08/24/15 23:15	1

Method: A-01-R - Isotopic Thorium (Alpha Spectrometry)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			(2σ+/-)	(2σ+/-)						
Thorium-228	0.814		0.159	0.173	1.00	0.0784	pCi/g	08/17/15 09:13	08/20/15 14:18	1
Thorium-230	0.841		0.159	0.174	1.00	0.0460	pCi/g	08/17/15 09:13	08/20/15 14:18	1
Thorium-232	0.714		0.146	0.158	1.00	0.0457	pCi/g	08/17/15 09:13	08/20/15 14:18	1
Tracer	%Yield	Qualifier	Limits				Prepared	Analyzed	Dil Fac	
Thorium-229	95.2		30 - 110				08/17/15 09:13	08/20/15 14:18	1	

Method: A-01-R - Isotopic Uranium (Alpha Spectrometry)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			(2σ+/-)	(2σ+/-)						
Uranium-233/234	0.791		0.175	0.187	1.00	0.0711	pCi/g	08/17/15 09:13	08/20/15 20:51	1
Uranium-235/236	0.0324	U	0.0412	0.0413	1.00	0.0570	pCi/g	08/17/15 09:13	08/20/15 20:51	1
Uranium-238	0.801		0.174	0.187	1.00	0.0457	pCi/g	08/17/15 09:13	08/20/15 20:51	1
Tracer	%Yield	Qualifier	30 - 110				Prepared	Analyzed	Dil Fac	
Uranium-232	74.6		30 - 110				08/17/15 09:13	08/20/15 20:51	1	

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: EPA RST2 - RFP No. 337

TestAmerica Job ID: 160-13352-1

Client Sample ID: N001-SS002-1224-01

Lab Sample ID: 160-13352-2

Date Collected: 08/11/15 14:21
Date Received: 08/14/15 13:25

Matrix: Solid

Percent Solids: 84.8

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	11000		230	49	mg/Kg	✉	08/19/15 10:28	08/25/15 15:43	10
Antimony	ND		11	3.5	mg/Kg	✉	08/19/15 10:28	08/25/15 15:43	10
Arsenic	3.6	J B	11	2.7	mg/Kg	✉	08/19/15 10:28	08/25/15 15:43	10
Barium	120	B	57	1.3	mg/Kg	✉	08/19/15 10:28	08/25/15 15:43	10
Beryllium	ND		5.7	0.86	mg/Kg	✉	08/19/15 10:28	08/25/15 15:43	10
Cadmium	ND		5.7	0.39	mg/Kg	✉	08/19/15 10:28	08/25/15 15:43	10
Calcium	61000		2900	77	mg/Kg	✉	08/19/15 10:28	08/25/15 15:43	10
Chromium	54	B	11	1.6	mg/Kg	✉	08/19/15 10:28	08/26/15 13:45	10
Cobalt	9.1	J	57	1.7	mg/Kg	✉	08/19/15 10:28	08/25/15 15:43	10
Copper	230		29	2.8	mg/Kg	✉	08/19/15 10:28	08/25/15 15:43	10
Iron	19000		110	23	mg/Kg	✉	08/19/15 10:28	08/25/15 15:43	10
Lead	68		11	1.5	mg/Kg	✉	08/19/15 10:28	08/25/15 15:43	10
Magnesium	21000		1100	36	mg/Kg	✉	08/19/15 10:28	08/25/15 15:43	10
Manganese	640		11	0.92	mg/Kg	✉	08/19/15 10:28	08/25/15 15:43	10
Nickel	21	J	46	1.3	mg/Kg	✉	08/19/15 10:28	08/25/15 15:43	10
Potassium	1000	J	5700	830	mg/Kg	✉	08/19/15 10:28	08/25/15 15:43	10
Selenium	ND		17	2.4	mg/Kg	✉	08/19/15 10:28	08/25/15 15:43	10
Silver	ND		11	0.80	mg/Kg	✉	08/19/15 10:28	08/25/15 15:43	10
Sodium	100	J B	1100	87	mg/Kg	✉	08/19/15 10:28	08/25/15 15:43	10
Thallium	ND		23	2.2	mg/Kg	✉	08/19/15 10:28	08/25/15 15:43	10
Vanadium	27	J	57	5.8	mg/Kg	✉	08/19/15 10:28	08/25/15 15:43	10
Zinc	180		57	6.5	mg/Kg	✉	08/19/15 10:28	08/25/15 15:43	10

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14		0.037	0.012	mg/Kg	✉	08/24/15 14:02	08/24/15 23:17	1

Method: A-01-R - Isotopic Thorium (Alpha Spectrometry)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			(2σ+/-)	(2σ+/-)						
Thorium-228	1.13		0.199	0.221	1.00	0.0878	pCi/g	08/17/15 09:13	08/20/15 20:44	1
Thorium-230	1.22		0.206	0.231	1.00	0.0814	pCi/g	08/17/15 09:13	08/20/15 20:44	1
Thorium-232	0.965		0.181	0.199	1.00	0.0562	pCi/g	08/17/15 09:13	08/20/15 20:44	1
Tracer	%Yield	Qualifier	Limits				Prepared		Analyzed	Dil Fac
Thorium-229	84.5		30 - 110				08/17/15 09:13		08/20/15 20:44	1

Method: A-01-R - Isotopic Uranium (Alpha Spectrometry)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			(2σ+/-)	(2σ+/-)						
Uranium-233/234	1.63		0.248	0.284	1.00	0.0628	pCi/g	08/17/15 09:13	08/20/15 20:51	1
Uranium-235/236	0.0673		0.0577	0.0579	1.00	0.0567	pCi/g	08/17/15 09:13	08/20/15 20:51	1
Uranium-238	1.09		0.204	0.224	1.00	0.0705	pCi/g	08/17/15 09:13	08/20/15 20:51	1
Tracer	%Yield	Qualifier	Limits				Prepared		Analyzed	Dil Fac
Uranium-232	75.6		30 - 110				08/17/15 09:13		08/20/15 20:51	1

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: EPA RST2 - RFP No. 337

TestAmerica Job ID: 160-13352-1

Client Sample ID: N001-SS003-0012-01

Lab Sample ID: 160-13352-3

Date Collected: 08/11/15 14:50

Matrix: Solid

Date Received: 08/14/15 13:25

Percent Solids: 88.9

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	12000		210	44	mg/Kg	✉	08/19/15 10:28	08/25/15 15:47	10
Antimony	ND		10	3.2	mg/Kg	✉	08/19/15 10:28	08/25/15 15:47	10
Arsenic	ND		10	2.4	mg/Kg	✉	08/19/15 10:28	08/25/15 15:47	10
Barium	99	B	51	1.1	mg/Kg	✉	08/19/15 10:28	08/25/15 15:47	10
Beryllium	ND		5.1	0.77	mg/Kg	✉	08/19/15 10:28	08/25/15 15:47	10
Cadmium	ND		5.1	0.35	mg/Kg	✉	08/19/15 10:28	08/25/15 15:47	10
Calcium	8300		2600	69	mg/Kg	✉	08/19/15 10:28	08/25/15 15:47	10
Chromium	25	B	10	1.4	mg/Kg	✉	08/19/15 10:28	08/26/15 13:49	10
Cobalt	9.0	J	51	1.5	mg/Kg	✉	08/19/15 10:28	08/25/15 15:47	10
Copper	8.0	J	26	2.5	mg/Kg	✉	08/19/15 10:28	08/25/15 15:47	10
Iron	18000		100	20	mg/Kg	✉	08/19/15 10:28	08/25/15 15:47	10
Lead	30		10	1.3	mg/Kg	✉	08/19/15 10:28	08/25/15 15:47	10
Magnesium	5300		1000	33	mg/Kg	✉	08/19/15 10:28	08/25/15 15:47	10
Manganese	280		10	0.82	mg/Kg	✉	08/19/15 10:28	08/25/15 15:47	10
Nickel	23	J	41	1.2	mg/Kg	✉	08/19/15 10:28	08/25/15 15:47	10
Potassium	910	J	5100	750	mg/Kg	✉	08/19/15 10:28	08/25/15 15:47	10
Selenium	ND		15	2.1	mg/Kg	✉	08/19/15 10:28	08/25/15 15:47	10
Silver	ND		10	0.72	mg/Kg	✉	08/19/15 10:28	08/25/15 15:47	10
Sodium	ND		1000	78	mg/Kg	✉	08/19/15 10:28	08/25/15 15:47	10
Thallium	ND		21	2.0	mg/Kg	✉	08/19/15 10:28	08/25/15 15:47	10
Vanadium	20	J	51	5.2	mg/Kg	✉	08/19/15 10:28	08/25/15 15:47	10
Zinc	280		51	5.8	mg/Kg	✉	08/19/15 10:28	08/25/15 15:47	10

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.12		0.036	0.012	mg/Kg	✉	08/24/15 14:02	08/24/15 23:19	1

Method: A-01-R - Isotopic Thorium (Alpha Spectrometry)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			(2σ+/-)	(2σ+/-)						
Thorium-228	0.936		0.176	0.192	1.00	0.0768	pCi/g	08/17/15 09:13	08/20/15 14:18	1
Thorium-230	1.04		0.182	0.202	1.00	0.0239	pCi/g	08/17/15 09:13	08/20/15 14:18	1
Thorium-232	0.920		0.171	0.188	1.00	0.0490	pCi/g	08/17/15 09:13	08/20/15 14:18	1
Tracer	%Yield	Qualifier	Limits				Prepared			Dil Fac
Thorium-229	90.9		30 - 110				08/17/15 09:13			1

Method: A-01-R - Isotopic Uranium (Alpha Spectrometry)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			(2σ+/-)	(2σ+/-)						
Uranium-233/234	1.12		0.198	0.220	1.00	0.0580	pCi/g	08/17/15 09:13	08/20/15 20:51	1
Uranium-235/236	0.00541	U	0.0229	0.0229	1.00	0.0606	pCi/g	08/17/15 09:13	08/20/15 20:51	1
Uranium-238	1.03		0.190	0.209	1.00	0.0536	pCi/g	08/17/15 09:13	08/20/15 20:51	1
Tracer	%Yield	Qualifier	Limits				Prepared			Dil Fac
Uranium-232	83.2		30 - 110				08/17/15 09:13			1

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: EPA RST2 - RFP No. 337

TestAmerica Job ID: 160-13352-1

Client Sample ID: N001-SS004-0012-01

Lab Sample ID: 160-13352-4

Date Collected: 08/11/15 15:00

Matrix: Solid

Date Received: 08/14/15 13:25

Percent Solids: 83.1

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	11000		220	47	mg/Kg	✉	08/19/15 10:28	08/25/15 15:51	10
Antimony	ND		11	3.4	mg/Kg	✉	08/19/15 10:28	08/25/15 15:51	10
Arsenic	ND		11	2.6	mg/Kg	✉	08/19/15 10:28	08/25/15 15:51	10
Barium	91	B	55	1.2	mg/Kg	✉	08/19/15 10:28	08/25/15 15:51	10
Beryllium	ND		5.5	0.82	mg/Kg	✉	08/19/15 10:28	08/25/15 15:51	10
Cadmium	ND		5.5	0.37	mg/Kg	✉	08/19/15 10:28	08/25/15 15:51	10
Calcium	14000		2700	74	mg/Kg	✉	08/19/15 10:28	08/25/15 15:51	10
Chromium	23	B	11	1.5	mg/Kg	✉	08/19/15 10:28	08/26/15 13:53	10
Cobalt	8.8	J	55	1.6	mg/Kg	✉	08/19/15 10:28	08/25/15 15:51	10
Copper	14	J	27	2.7	mg/Kg	✉	08/19/15 10:28	08/25/15 15:51	10
Iron	17000		110	22	mg/Kg	✉	08/19/15 10:28	08/25/15 15:51	10
Lead	29		11	1.4	mg/Kg	✉	08/19/15 10:28	08/25/15 15:51	10
Magnesium	5800		1100	35	mg/Kg	✉	08/19/15 10:28	08/25/15 15:51	10
Manganese	270		11	0.88	mg/Kg	✉	08/19/15 10:28	08/25/15 15:51	10
Nickel	21	J	44	1.3	mg/Kg	✉	08/19/15 10:28	08/25/15 15:51	10
Potassium	1100	J	5500	790	mg/Kg	✉	08/19/15 10:28	08/25/15 15:51	10
Selenium	ND		16	2.3	mg/Kg	✉	08/19/15 10:28	08/25/15 15:51	10
Silver	ND		11	0.77	mg/Kg	✉	08/19/15 10:28	08/25/15 15:51	10
Sodium	ND		1100	84	mg/Kg	✉	08/19/15 10:28	08/25/15 15:51	10
Thallium	ND		22	2.1	mg/Kg	✉	08/19/15 10:28	08/25/15 15:51	10
Vanadium	16	J	55	5.6	mg/Kg	✉	08/19/15 10:28	08/25/15 15:51	10
Zinc	190		55	6.2	mg/Kg	✉	08/19/15 10:28	08/25/15 15:51	10

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.19		0.039	0.013	mg/Kg	✉	08/24/15 14:02	08/24/15 23:21	1

Method: A-01-R - Isotopic Thorium (Alpha Spectrometry)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			(2σ+/-)	(2σ+/-)						
Thorium-228	0.942		0.184	0.200	1.00	0.0874	pCi/g	08/17/15 09:13	08/20/15 14:18	1
Thorium-230	1.06		0.193	0.213	1.00	0.0687	pCi/g	08/17/15 09:13	08/20/15 14:18	1
Thorium-232	1.00		0.186	0.204	1.00	0.0415	pCi/g	08/17/15 09:13	08/20/15 14:18	1
Tracer	%Yield	Qualifier	Limits				Prepared		Analyzed	Dil Fac
Thorium-229	87.6		30 - 110				08/17/15 09:13		08/20/15 14:18	1

Method: A-01-R - Isotopic Uranium (Alpha Spectrometry)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			(2σ+/-)	(2σ+/-)						
Uranium-233/234	0.869		0.184	0.198	1.00	0.0858	pCi/g	08/17/15 09:13	08/20/15 20:51	1
Uranium-235/236	0.0264	U	0.0419	0.0419	1.00	0.0725	pCi/g	08/17/15 09:13	08/20/15 20:51	1
Uranium-238	0.776		0.172	0.183	1.00	0.0527	pCi/g	08/17/15 09:13	08/20/15 20:51	1
Tracer	%Yield	Qualifier	Limits				Prepared		Analyzed	Dil Fac
Uranium-232	80.2		30 - 110				08/17/15 09:13		08/20/15 20:51	1

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: EPA RST2 - RFP No. 337

TestAmerica Job ID: 160-13352-1

Client Sample ID: N001-SS005-1830-01

Lab Sample ID: 160-13352-5

Date Collected: 08/11/15 15:26

Matrix: Solid

Date Received: 08/14/15 13:25

Percent Solids: 85.3

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	12000		210	44	mg/Kg	✉	08/19/15 10:28	08/25/15 15:55	10
Antimony	ND		10	3.2	mg/Kg	✉	08/19/15 10:28	08/25/15 15:55	10
Arsenic	4.0	J B	10	2.4	mg/Kg	✉	08/19/15 10:28	08/25/15 15:55	10
Barium	130	B	51	1.1	mg/Kg	✉	08/19/15 10:28	08/25/15 15:55	10
Beryllium	ND		5.1	0.77	mg/Kg	✉	08/19/15 10:28	08/25/15 15:55	10
Cadmium	ND		5.1	0.35	mg/Kg	✉	08/19/15 10:28	08/25/15 15:55	10
Calcium	27000		2600	69	mg/Kg	✉	08/19/15 10:28	08/25/15 15:55	10
Chromium	25	B	10	1.4	mg/Kg	✉	08/19/15 10:28	08/26/15 14:10	10
Cobalt	12	J	51	1.5	mg/Kg	✉	08/19/15 10:28	08/25/15 15:55	10
Copper	24	J	26	2.5	mg/Kg	✉	08/19/15 10:28	08/25/15 15:55	10
Iron	28000		100	20	mg/Kg	✉	08/19/15 10:28	08/25/15 15:55	10
Lead	35		10	1.3	mg/Kg	✉	08/19/15 10:28	08/25/15 15:55	10
Magnesium	9700		1000	32	mg/Kg	✉	08/19/15 10:28	08/25/15 15:55	10
Manganese	400		10	0.82	mg/Kg	✉	08/19/15 10:28	08/25/15 15:55	10
Nickel	28	J	41	1.2	mg/Kg	✉	08/19/15 10:28	08/25/15 15:55	10
Potassium	1400	J	5100	740	mg/Kg	✉	08/19/15 10:28	08/25/15 15:55	10
Selenium	ND		15	2.1	mg/Kg	✉	08/19/15 10:28	08/25/15 15:55	10
Silver	ND		10	0.72	mg/Kg	✉	08/19/15 10:28	08/25/15 15:55	10
Sodium	110	J B	1000	78	mg/Kg	✉	08/19/15 10:28	08/25/15 15:55	10
Thallium	ND		21	1.9	mg/Kg	✉	08/19/15 10:28	08/25/15 15:55	10
Vanadium	21	J	51	5.2	mg/Kg	✉	08/19/15 10:28	08/25/15 15:55	10
Zinc	110		51	5.8	mg/Kg	✉	08/19/15 10:28	08/25/15 15:55	10

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.037		0.034	0.011	mg/Kg	✉	08/24/15 14:02	08/24/15 23:23	1

Method: A-01-R - Isotopic Thorium (Alpha Spectrometry)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			(2σ+/-)	(2σ+/-)						
Thorium-228	1.36		0.214	0.243	1.00	0.0847	pCi/g	08/17/15 09:13	08/20/15 14:18	1
Thorium-230	1.03		0.186	0.205	1.00	0.0672	pCi/g	08/17/15 09:13	08/20/15 14:18	1
Thorium-232	1.39		0.213	0.243	1.00	0.0457	pCi/g	08/17/15 09:13	08/20/15 14:18	1
Tracer	%Yield	Qualifier	Limits				Prepared		Analyzed	Dil Fac
Thorium-229	88.6		30 - 110				08/17/15 09:13		08/20/15 14:18	1

Method: A-01-R - Isotopic Uranium (Alpha Spectrometry)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			(2σ+/-)	(2σ+/-)						
Uranium-233/234	0.786		0.167	0.180	1.00	0.0709	pCi/g	08/17/15 09:13	08/20/15 20:51	1
Uranium-235/236	0.0726		0.0571	0.0575	1.00	0.0520	pCi/g	08/17/15 09:13	08/20/15 20:51	1
Uranium-238	1.05		0.191	0.211	1.00	0.0533	pCi/g	08/17/15 09:13	08/20/15 20:51	1
Tracer	%Yield	Qualifier	Limits				Prepared		Analyzed	Dil Fac
Uranium-232	84.0		30 - 110				08/17/15 09:13		08/20/15 20:51	1

Client Sample Results

Client: Weston Solutions, Inc.

Project/Site: EPA RST2 - RFP No. 337

TestAmerica Job ID: 160-13352-1

Client Sample ID: N001-SS006-0012-01

Date Collected: 08/12/15 15:30

Date Received: 08/14/15 13:25

Lab Sample ID: 160-13352-6

Matrix: Solid

Percent Solids: 80.7

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	5500		440	94	mg/Kg	✉	08/19/15 10:28	08/25/15 15:59	20
Antimony	ND		22	6.8	mg/Kg	✉	08/19/15 10:28	08/25/15 15:59	20
Arsenic	ND		22	5.2	mg/Kg	✉	08/19/15 10:28	08/25/15 15:59	20
Barium	350	B	110	2.4	mg/Kg	✉	08/19/15 10:28	08/25/15 15:59	20
Beryllium	ND		11	1.7	mg/Kg	✉	08/19/15 10:28	08/25/15 15:59	20
Cadmium	8.2	J	11	0.75	mg/Kg	✉	08/19/15 10:28	08/25/15 15:59	20
Calcium	150000		5500	150	mg/Kg	✉	08/19/15 10:28	08/25/15 15:59	20
Chromium	49	B	22	3.0	mg/Kg	✉	08/19/15 10:28	08/26/15 14:14	20
Cobalt	6.8	J	110	3.2	mg/Kg	✉	08/19/15 10:28	08/25/15 15:59	20
Copper	130		55	5.4	mg/Kg	✉	08/19/15 10:28	08/25/15 15:59	20
Iron	16000		220	44	mg/Kg	✉	08/19/15 10:28	08/25/15 15:59	20
Lead	110		22	2.8	mg/Kg	✉	08/19/15 10:28	08/25/15 15:59	20
Magnesium	51000		2200	70	mg/Kg	✉	08/19/15 10:28	08/25/15 15:59	20
Manganese	790		22	1.8	mg/Kg	✉	08/19/15 10:28	08/25/15 15:59	20
Nickel	30	J	88	2.6	mg/Kg	✉	08/19/15 10:28	08/25/15 15:59	20
Potassium	ND		11000	1600	mg/Kg	✉	08/19/15 10:28	08/25/15 15:59	20
Selenium	ND		33	4.6	mg/Kg	✉	08/19/15 10:28	08/25/15 15:59	20
Silver	4.4	J	22	1.5	mg/Kg	✉	08/19/15 10:28	08/25/15 15:59	20
Sodium	190	J B	2200	170	mg/Kg	✉	08/19/15 10:28	08/25/15 15:59	20
Thallium	ND		44	4.2	mg/Kg	✉	08/19/15 10:28	08/25/15 15:59	20
Vanadium	15	J	110	11	mg/Kg	✉	08/19/15 10:28	08/25/15 15:59	20
Zinc	550		110	12	mg/Kg	✉	08/19/15 10:28	08/25/15 15:59	20

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	1.3		0.039	0.013	mg/Kg	✉	08/24/15 14:02	08/24/15 23:25	1

Method: A-01-R - Isotopic Thorium (Alpha Spectrometry)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Thorium-228	10.8		0.618	1.09	1.00	0.101	pCi/g	08/17/15 09:13	08/20/15 20:44	1
Thorium-230	3.96		0.375	0.501	1.00	0.0547	pCi/g	08/17/15 09:13	08/20/15 20:44	1
Thorium-232	9.56		0.580	0.991	1.00	0.0426	pCi/g	08/17/15 09:13	08/20/15 20:44	1
Tracer	%Yield	Qualifier	Limits				Prepared		Analyzed	Dil Fac
Thorium-229	85.0		30 - 110				08/17/15 09:13		08/20/15 20:44	1

Method: A-01-R - Isotopic Uranium (Alpha Spectrometry)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Uranium-233/234	3.35		0.338	0.439	1.00	0.0851	pCi/g	08/17/15 09:13	08/20/15 20:51	1
Uranium-235/236	0.131		0.0758	0.0766	1.00	0.0586	pCi/g	08/17/15 09:13	08/20/15 20:51	1
Uranium-238	3.92		0.363	0.490	1.00	0.0519	pCi/g	08/17/15 09:13	08/20/15 20:51	1
Tracer	%Yield	Qualifier	Limits				Prepared		Analyzed	Dil Fac
Uranium-232	83.6		30 - 110				08/17/15 09:13		08/20/15 20:51	1

Client Sample Results

Client: Weston Solutions, Inc.

Project/Site: EPA RST2 - RFP No. 337

TestAmerica Job ID: 160-13352-1

Client Sample ID: N001-SS007-0012-01

Lab Sample ID: 160-13352-7

Date Collected: 08/12/15 15:15

Matrix: Solid

Date Received: 08/14/15 13:25

Percent Solids: 83.6

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	14000		220	48	mg/Kg	✉	08/19/15 10:28	08/25/15 16:03	10
Antimony	ND		11	3.5	mg/Kg	✉	08/19/15 10:28	08/25/15 16:03	10
Arsenic	3.0	J B	11	2.6	mg/Kg	✉	08/19/15 10:28	08/25/15 16:03	10
Barium	4300	B	56	1.2	mg/Kg	✉	08/19/15 10:28	08/25/15 16:03	10
Beryllium	2.7	J	5.6	0.84	mg/Kg	✉	08/19/15 10:28	08/25/15 16:03	10
Cadmium	ND		5.6	0.38	mg/Kg	✉	08/19/15 10:28	08/25/15 16:03	10
Calcium	44000		2800	76	mg/Kg	✉	08/19/15 10:28	08/25/15 16:03	10
Chromium	72	B	11	1.5	mg/Kg	✉	08/19/15 10:28	08/26/15 14:18	10
Cobalt	10	J	56	1.6	mg/Kg	✉	08/19/15 10:28	08/25/15 16:03	10
Copper	24	J	28	2.7	mg/Kg	✉	08/19/15 10:28	08/25/15 16:03	10
Iron	18000		110	22	mg/Kg	✉	08/19/15 10:28	08/25/15 16:03	10
Lead	50		11	1.4	mg/Kg	✉	08/19/15 10:28	08/25/15 16:03	10
Magnesium	12000		1100	35	mg/Kg	✉	08/19/15 10:28	08/25/15 16:03	10
Manganese	5500		11	0.90	mg/Kg	✉	08/19/15 10:28	08/25/15 16:03	10
Nickel	25	J	45	1.3	mg/Kg	✉	08/19/15 10:28	08/25/15 16:03	10
Potassium	2600	J	5600	810	mg/Kg	✉	08/19/15 10:28	08/25/15 16:03	10
Selenium	ND		17	2.3	mg/Kg	✉	08/19/15 10:28	08/25/15 16:03	10
Silver	ND		11	0.79	mg/Kg	✉	08/19/15 10:28	08/25/15 16:03	10
Sodium	280	J B	1100	86	mg/Kg	✉	08/19/15 10:28	08/25/15 16:03	10
Thallium	ND		22	2.1	mg/Kg	✉	08/19/15 10:28	08/25/15 16:03	10
Vanadium	15	J	56	5.7	mg/Kg	✉	08/19/15 10:28	08/25/15 16:03	10
Zinc	110		56	6.3	mg/Kg	✉	08/19/15 10:28	08/25/15 16:03	10

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.12		0.035	0.012	mg/Kg	✉	08/24/15 14:02	08/24/15 23:26	1

Method: A-01-R - Isotopic Thorium (Alpha Spectrometry)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			(2σ+/-)	(2σ+/-)						
Thorium-228	0.835		0.175	0.189	1.00	0.0849	pCi/g	08/17/15 09:13	08/20/15 14:18	1
Thorium-230	1.06		0.194	0.214	1.00	0.0494	pCi/g	08/17/15 09:13	08/20/15 14:18	1
Thorium-232	0.820		0.170	0.184	1.00	0.0491	pCi/g	08/17/15 09:13	08/20/15 14:18	1
Tracer	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Thorium-229	81.9		30 - 110					08/17/15 09:13	08/20/15 14:18	1

Method: A-01-R - Isotopic Uranium (Alpha Spectrometry)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			(2σ+/-)	(2σ+/-)						
Uranium-233/234	0.710		0.159	0.170	1.00	0.0266	pCi/g	08/17/15 09:13	08/20/15 20:51	1
Uranium-235/236	0.0746		0.0587	0.0590	1.00	0.0535	pCi/g	08/17/15 09:13	08/20/15 20:51	1
Uranium-238	0.811		0.170	0.183	1.00	0.0496	pCi/g	08/17/15 09:13	08/20/15 20:51	1
Tracer	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Uranium-232	81.3		30 - 110					08/17/15 09:13	08/20/15 20:51	1

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: EPA RST2 - RFP No. 337

TestAmerica Job ID: 160-13352-1

Client Sample ID: N002-SS001-0012-01

Lab Sample ID: 160-13352-8

Date Collected: 08/11/15 13:10

Matrix: Solid

Date Received: 08/14/15 13:25

Percent Solids: 94.9

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	15000		1000	220	mg/Kg	✉	08/19/15 10:28	08/25/15 16:07	50
Antimony	ND		51	16	mg/Kg	✉	08/19/15 10:28	08/25/15 16:07	50
Arsenic	24	J B	51	12	mg/Kg	✉	08/19/15 10:28	08/25/15 16:07	50
Barium	1400	B	250	5.6	mg/Kg	✉	08/19/15 10:28	08/25/15 16:07	50
Beryllium	ND		25	3.8	mg/Kg	✉	08/19/15 10:28	08/25/15 16:07	50
Cadmium	ND		25	1.7	mg/Kg	✉	08/19/15 10:28	08/25/15 16:07	50
Calcium	95000		13000	340	mg/Kg	✉	08/19/15 10:28	08/25/15 16:07	50
Chromium	210	B	51	7.0	mg/Kg	✉	08/19/15 10:28	08/25/15 16:07	50
Cobalt	20	J	250	7.3	mg/Kg	✉	08/19/15 10:28	08/25/15 16:07	50
Copper	41	J	130	12	mg/Kg	✉	08/19/15 10:28	08/25/15 16:07	50
Iron	17000		510	100	mg/Kg	✉	08/19/15 10:28	08/25/15 16:07	50
Lead	22	J	51	6.6	mg/Kg	✉	08/19/15 10:28	08/25/15 16:07	50
Magnesium	29000		5100	160	mg/Kg	✉	08/19/15 10:28	08/25/15 16:07	50
Manganese	25000		51	4.1	mg/Kg	✉	08/19/15 10:28	08/25/15 16:07	50
Nickel	42	J	200	5.9	mg/Kg	✉	08/19/15 10:28	08/25/15 16:07	50
Potassium	ND		25000	3700	mg/Kg	✉	08/19/15 10:28	08/25/15 16:07	50
Selenium	ND		76	10	mg/Kg	✉	08/19/15 10:28	08/25/15 16:07	50
Silver	ND		51	3.6	mg/Kg	✉	08/19/15 10:28	08/25/15 16:07	50
Sodium	ND		5100	390	mg/Kg	✉	08/19/15 10:28	08/25/15 16:07	50
Thallium	ND		100	9.7	mg/Kg	✉	08/19/15 10:28	08/25/15 16:07	50
Vanadium	ND		250	26	mg/Kg	✉	08/19/15 10:28	08/25/15 16:07	50
Zinc	93	J	250	29	mg/Kg	✉	08/19/15 10:28	08/25/15 16:07	50

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.030	0.010	mg/Kg	✉	08/24/15 14:02	08/24/15 23:28	1

Method: A-01-R - Isotopic Thorium (Alpha Spectrometry)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			(2σ+/-)	(2σ+/-)						
Thorium-228	3.94		0.376	0.500	1.00	0.0808	pCi/g	08/17/15 09:13	08/20/15 14:18	1
Thorium-230	3.10		0.333	0.423	1.00	0.0730	pCi/g	08/17/15 09:13	08/20/15 14:18	1
Thorium-232	3.41		0.348	0.450	1.00	0.0496	pCi/g	08/17/15 09:13	08/20/15 14:18	1
Tracer	%Yield	Qualifier	Limits				Prepared			Dil Fac
Thorium-229	84.4		30 - 110				08/17/15 09:13			1

Method: A-01-R - Isotopic Uranium (Alpha Spectrometry)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			(2σ+/-)	(2σ+/-)						
Uranium-233/234	2.67		0.308	0.381	1.00	0.0751	pCi/g	08/17/15 09:13	08/20/15 20:51	1
Uranium-235/236	0.0521	U	0.0494	0.0495	1.00	0.0531	pCi/g	08/17/15 09:13	08/20/15 20:51	1
Uranium-238	2.56		0.301	0.370	1.00	0.0692	pCi/g	08/17/15 09:13	08/20/15 20:51	1
Tracer	%Yield	Qualifier	Limits				Prepared			Dil Fac
Uranium-232	85.2		30 - 110				08/17/15 09:13			1

Client Sample Results

Client: Weston Solutions, Inc.

Project/Site: EPA RST2 - RFP No. 337

TestAmerica Job ID: 160-13352-1

Client Sample ID: N002-SS002-0012-01

Date Collected: 08/11/15 13:30

Date Received: 08/14/15 13:25

Lab Sample ID: 160-13352-9

Matrix: Solid

Percent Solids: 88.5

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	12000		190	42	mg/Kg	✉	08/19/15 10:28	08/25/15 16:24	10
Antimony	ND		9.7	3.0	mg/Kg	✉	08/19/15 10:28	08/25/15 16:24	10
Arsenic	ND		9.7	2.3	mg/Kg	✉	08/19/15 10:28	08/25/15 16:24	10
Barium	210	B	49	1.1	mg/Kg	✉	08/19/15 10:28	08/25/15 16:24	10
Beryllium	0.88	J	4.9	0.73	mg/Kg	✉	08/19/15 10:28	08/25/15 16:24	10
Cadmium	0.68	J	4.9	0.33	mg/Kg	✉	08/19/15 10:28	08/25/15 16:24	10
Calcium	35000		2400	66	mg/Kg	✉	08/19/15 10:28	08/25/15 16:24	10
Chromium	53	B	9.7	1.3	mg/Kg	✉	08/19/15 10:28	08/26/15 14:27	10
Cobalt	9.6	J	49	1.4	mg/Kg	✉	08/19/15 10:28	08/25/15 16:24	10
Copper	29		24	2.4	mg/Kg	✉	08/19/15 10:28	08/25/15 16:24	10
Iron	20000		97	19	mg/Kg	✉	08/19/15 10:28	08/25/15 16:24	10
Lead	77		9.7	1.3	mg/Kg	✉	08/19/15 10:28	08/25/15 16:24	10
Magnesium	10000		970	31	mg/Kg	✉	08/19/15 10:28	08/25/15 16:24	10
Manganese	1000		9.7	0.78	mg/Kg	✉	08/19/15 10:28	08/25/15 16:24	10
Nickel	24	J	39	1.1	mg/Kg	✉	08/19/15 10:28	08/25/15 16:24	10
Potassium	1200	J	4900	710	mg/Kg	✉	08/19/15 10:28	08/25/15 16:24	10
Selenium	ND		15	2.0	mg/Kg	✉	08/19/15 10:28	08/25/15 16:24	10
Silver	ND		9.7	0.68	mg/Kg	✉	08/19/15 10:28	08/25/15 16:24	10
Sodium	150	J B	970	74	mg/Kg	✉	08/19/15 10:28	08/25/15 16:24	10
Thallium	ND		19	1.9	mg/Kg	✉	08/19/15 10:28	08/25/15 16:24	10
Vanadium	19	J	49	4.9	mg/Kg	✉	08/19/15 10:28	08/25/15 16:24	10
Zinc	170		49	5.5	mg/Kg	✉	08/19/15 10:28	08/25/15 16:24	10

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.031	J	0.036	0.012	mg/Kg	✉	08/24/15 14:02	08/24/15 23:30	1

Method: A-01-R - Isotopic Thorium (Alpha Spectrometry)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			(2σ+/-)	(2σ+/-)						
Thorium-228	7.97		0.529	0.853	1.00	0.0745	pCi/g	08/17/15 09:13	08/20/15 14:18	1
Thorium-230	3.18		0.334	0.427	1.00	0.0541	pCi/g	08/17/15 09:13	08/20/15 14:18	1
Thorium-232	7.17		0.500	0.783	1.00	0.0538	pCi/g	08/17/15 09:13	08/20/15 14:18	1
Tracer	%Yield	Qualifier	Limits				Prepared		Analyzed	Dil Fac
Thorium-229	81.3		30 - 110				08/17/15 09:13		08/20/15 14:18	1

Method: A-01-R - Isotopic Uranium (Alpha Spectrometry)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			(2σ+/-)	(2σ+/-)						
Uranium-233/234	2.50		0.309	0.373	1.00	0.0589	pCi/g	08/17/15 09:13	08/20/15 20:51	1
Uranium-235/236	0.201		0.0977	0.0992	1.00	0.0356	pCi/g	08/17/15 09:13	08/20/15 20:51	1
Uranium-238	2.36		0.300	0.360	1.00	0.0460	pCi/g	08/17/15 09:13	08/20/15 20:51	1
Tracer	%Yield	Qualifier	Limits				Prepared		Analyzed	Dil Fac
Uranium-232	74.6		30 - 110				08/17/15 09:13		08/20/15 20:51	1

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: EPA RST2 - RFP No. 337

TestAmerica Job ID: 160-13352-1

Client Sample ID: N002-SS003-0012-01

Lab Sample ID: 160-13352-10

Date Collected: 08/11/15 16:45

Matrix: Solid

Date Received: 08/14/15 13:25

Percent Solids: 82.4

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	17000		210	45	mg/Kg	✉	08/19/15 10:28	08/25/15 16:28	10
Antimony	ND		11	3.3	mg/Kg	✉	08/19/15 10:28	08/25/15 16:28	10
Arsenic	3.1	J B	11	2.5	mg/Kg	✉	08/19/15 10:28	08/25/15 16:28	10
Barium	150	B	53	1.2	mg/Kg	✉	08/19/15 10:28	08/25/15 16:28	10
Beryllium	0.95	J	5.3	0.79	mg/Kg	✉	08/19/15 10:28	08/25/15 16:28	10
Cadmium	ND		5.3	0.36	mg/Kg	✉	08/19/15 10:28	08/25/15 16:28	10
Calcium	5300		2600	71	mg/Kg	✉	08/19/15 10:28	08/25/15 16:28	10
Chromium	23	B	11	1.5	mg/Kg	✉	08/19/15 10:28	08/26/15 14:31	10
Cobalt	11	J	53	1.5	mg/Kg	✉	08/19/15 10:28	08/25/15 16:28	10
Copper	8.0	J	26	2.6	mg/Kg	✉	08/19/15 10:28	08/25/15 16:28	10
Iron	23000		110	21	mg/Kg	✉	08/19/15 10:28	08/25/15 16:28	10
Lead	18		11	1.4	mg/Kg	✉	08/19/15 10:28	08/25/15 16:28	10
Magnesium	4800		1100	33	mg/Kg	✉	08/19/15 10:28	08/25/15 16:28	10
Manganese	420		11	0.84	mg/Kg	✉	08/19/15 10:28	08/25/15 16:28	10
Nickel	24	J	42	1.2	mg/Kg	✉	08/19/15 10:28	08/25/15 16:28	10
Potassium	1000	J	5300	760	mg/Kg	✉	08/19/15 10:28	08/25/15 16:28	10
Selenium	ND		16	2.2	mg/Kg	✉	08/19/15 10:28	08/25/15 16:28	10
Silver	ND		11	0.74	mg/Kg	✉	08/19/15 10:28	08/25/15 16:28	10
Sodium	120	J B	1100	80	mg/Kg	✉	08/19/15 10:28	08/25/15 16:28	10
Thallium	2.7	J	21	2.0	mg/Kg	✉	08/19/15 10:28	08/25/15 16:28	10
Vanadium	32	J	53	5.3	mg/Kg	✉	08/19/15 10:28	08/25/15 16:28	10
Zinc	290		53	5.9	mg/Kg	✉	08/19/15 10:28	08/25/15 16:28	10

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.055		0.036	0.012	mg/Kg	✉	08/24/15 14:02	08/24/15 23:32	1

Method: A-01-R - Isotopic Thorium (Alpha Spectrometry)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			(2σ+/-)	(2σ+/-)						
Thorium-228	1.12		0.195	0.217	1.00	0.0813	pCi/g	08/17/15 09:13	08/20/15 14:18	1
Thorium-230	1.18		0.198	0.222	1.00	0.0509	pCi/g	08/17/15 09:13	08/20/15 14:18	1
Thorium-232	1.06		0.186	0.206	1.00	0.0397	pCi/g	08/17/15 09:13	08/20/15 14:18	1
Tracer	%Yield	Qualifier	Limits				Prepared		Analyzed	Dil Fac
Thorium-229	86.0		30 - 110				08/17/15 09:13		08/20/15 14:18	1

Method: A-01-R - Isotopic Uranium (Alpha Spectrometry)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			(2σ+/-)	(2σ+/-)						
Uranium-233/234	1.41		0.225	0.254	1.00	0.0664	pCi/g	08/17/15 09:13	08/20/15 20:51	1
Uranium-235/236	0.0386	U	0.0447	0.0449	1.00	0.0617	pCi/g	08/17/15 09:13	08/20/15 20:51	1
Uranium-238	1.01		0.190	0.208	1.00	0.0495	pCi/g	08/17/15 09:13	08/20/15 20:51	1
Tracer	%Yield	Qualifier	Limits				Prepared		Analyzed	Dil Fac
Uranium-232	79.9		30 - 110				08/17/15 09:13		08/20/15 20:51	1

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: EPA RST2 - RFP No. 337

TestAmerica Job ID: 160-13352-1

Client Sample ID: N002-SS004-0012-01

Lab Sample ID: 160-13352-11

Date Collected: 08/11/15 17:00

Matrix: Solid

Date Received: 08/14/15 13:25

Percent Solids: 84.3

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	16000		220	46	mg/Kg	✉	08/19/15 10:28	08/25/15 16:32	10
Antimony	ND		11	3.4	mg/Kg	✉	08/19/15 10:28	08/25/15 16:32	10
Arsenic	ND		11	2.6	mg/Kg	✉	08/19/15 10:28	08/25/15 16:32	10
Barium	130	B	54	1.2	mg/Kg	✉	08/19/15 10:28	08/25/15 16:32	10
Beryllium	ND		5.4	0.82	mg/Kg	✉	08/19/15 10:28	08/25/15 16:32	10
Cadmium	ND		5.4	0.37	mg/Kg	✉	08/19/15 10:28	08/25/15 16:32	10
Calcium	9100		2700	73	mg/Kg	✉	08/19/15 10:28	08/25/15 16:32	10
Chromium	25	B	11	1.5	mg/Kg	✉	08/19/15 10:28	08/26/15 14:35	10
Cobalt	13	J	54	1.6	mg/Kg	✉	08/19/15 10:28	08/25/15 16:32	10
Copper	14	J	27	2.7	mg/Kg	✉	08/19/15 10:28	08/25/15 16:32	10
Iron	25000		110	22	mg/Kg	✉	08/19/15 10:28	08/25/15 16:32	10
Lead	37		11	1.4	mg/Kg	✉	08/19/15 10:28	08/25/15 16:32	10
Magnesium	6100		1100	34	mg/Kg	✉	08/19/15 10:28	08/25/15 16:32	10
Manganese	510		11	0.87	mg/Kg	✉	08/19/15 10:28	08/25/15 16:32	10
Nickel	27	J	43	1.3	mg/Kg	✉	08/19/15 10:28	08/25/15 16:32	10
Potassium	1100	J	5400	790	mg/Kg	✉	08/19/15 10:28	08/25/15 16:32	10
Selenium	ND		16	2.2	mg/Kg	✉	08/19/15 10:28	08/25/15 16:32	10
Silver	ND		11	0.76	mg/Kg	✉	08/19/15 10:28	08/25/15 16:32	10
Sodium	ND		1100	83	mg/Kg	✉	08/19/15 10:28	08/25/15 16:32	10
Thallium	ND		22	2.1	mg/Kg	✉	08/19/15 10:28	08/25/15 16:32	10
Vanadium	24	J	54	5.5	mg/Kg	✉	08/19/15 10:28	08/25/15 16:32	10
Zinc	440		54	6.1	mg/Kg	✉	08/19/15 10:28	08/25/15 16:32	10

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.28		0.035	0.012	mg/Kg	✉	08/24/15 14:02	08/24/15 23:38	1

Method: A-01-R - Isotopic Thorium (Alpha Spectrometry)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			(2σ+/-)	(2σ+/-)						
Thorium-228	0.936		0.165	0.183	1.00	0.0741	pCi/g	08/17/15 09:13	08/20/15 14:18	1
Thorium-230	0.874		0.157	0.174	1.00	0.0498	pCi/g	08/17/15 09:13	08/20/15 14:18	1
Thorium-232	0.873		0.157	0.173	1.00	0.0431	pCi/g	08/17/15 09:13	08/20/15 14:18	1
Tracer	%Yield	Qualifier	Limits				Prepared			Dil Fac
Thorium-229	105		30 - 110				08/17/15 09:13			1

Method: A-01-R - Isotopic Uranium (Alpha Spectrometry)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			(2σ+/-)	(2σ+/-)						
Uranium-233/234	1.31		0.227	0.252	1.00	0.0825	pCi/g	08/17/15 09:13	08/20/15 20:51	1
Uranium-235/236	0.0563	U	0.0566	0.0568	1.00	0.0701	pCi/g	08/17/15 09:13	08/20/15 20:51	1
Uranium-238	1.19		0.217	0.239	1.00	0.0824	pCi/g	08/17/15 09:13	08/20/15 20:51	1
Tracer	%Yield	Qualifier	Limits				Prepared			Dil Fac
Uranium-232	75.9		30 - 110				08/17/15 09:13			1

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: EPA RST2 - RFP No. 337

TestAmerica Job ID: 160-13352-1

Client Sample ID: N002-SS005-0012-01

Lab Sample ID: 160-13352-12

Date Collected: 08/11/15 15:58

Matrix: Solid

Date Received: 08/14/15 13:25

Percent Solids: 86.3

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	15000		230	48	mg/Kg	✉	08/19/15 10:28	08/25/15 16:36	10
Antimony	ND		11	3.5	mg/Kg	✉	08/19/15 10:28	08/25/15 16:36	10
Arsenic	ND		11	2.7	mg/Kg	✉	08/19/15 10:28	08/25/15 16:36	10
Barium	56	B	56	1.2	mg/Kg	✉	08/19/15 10:28	08/25/15 16:36	10
Beryllium	ND		5.6	0.84	mg/Kg	✉	08/19/15 10:28	08/25/15 16:36	10
Cadmium	ND		5.6	0.38	mg/Kg	✉	08/19/15 10:28	08/25/15 16:36	10
Calcium	1100	J	2800	76	mg/Kg	✉	08/19/15 10:28	08/25/15 16:36	10
Chromium	20	B	11	1.6	mg/Kg	✉	08/19/15 10:28	08/26/15 14:39	10
Cobalt	6.9	J	56	1.6	mg/Kg	✉	08/19/15 10:28	08/25/15 16:36	10
Copper	ND		28	2.8	mg/Kg	✉	08/19/15 10:28	08/25/15 16:36	10
Iron	19000		110	22	mg/Kg	✉	08/19/15 10:28	08/25/15 16:36	10
Lead	12		11	1.5	mg/Kg	✉	08/19/15 10:28	08/25/15 16:36	10
Magnesium	3600		1100	36	mg/Kg	✉	08/19/15 10:28	08/25/15 16:36	10
Manganese	110		11	0.90	mg/Kg	✉	08/19/15 10:28	08/25/15 16:36	10
Nickel	18	J	45	1.3	mg/Kg	✉	08/19/15 10:28	08/25/15 16:36	10
Potassium	ND		5600	810	mg/Kg	✉	08/19/15 10:28	08/25/15 16:36	10
Selenium	ND		17	2.3	mg/Kg	✉	08/19/15 10:28	08/25/15 16:36	10
Silver	ND		11	0.79	mg/Kg	✉	08/19/15 10:28	08/25/15 16:36	10
Sodium	ND		1100	86	mg/Kg	✉	08/19/15 10:28	08/25/15 16:36	10
Thallium	ND		23	2.1	mg/Kg	✉	08/19/15 10:28	08/25/15 16:36	10
Vanadium	26	J	56	5.7	mg/Kg	✉	08/19/15 10:28	08/25/15 16:36	10
Zinc	120		56	6.3	mg/Kg	✉	08/19/15 10:28	08/25/15 16:36	10

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.036		0.035	0.012	mg/Kg	✉	08/24/15 14:02	08/24/15 23:40	1

Method: A-01-R - Isotopic Thorium (Alpha Spectrometry)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			(2σ+/-)	(2σ+/-)						
Thorium-228	0.861		0.170	0.184	1.00	0.0251	pCi/g	08/17/15 09:13	08/20/15 20:44	1
Thorium-230	0.904		0.175	0.190	1.00	0.0517	pCi/g	08/17/15 09:13	08/20/15 20:44	1
Thorium-232	0.899		0.174	0.190	1.00	0.0624	pCi/g	08/17/15 09:13	08/20/15 20:44	1
Tracer	%Yield	Qualifier	Limits				Prepared		Analyzed	Dil Fac
Thorium-229	90.3		30 - 110				08/17/15 09:13		08/20/15 20:44	1

Method: A-01-R - Isotopic Uranium (Alpha Spectrometry)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			(2σ+/-)	(2σ+/-)						
Uranium-233/234	0.721		0.162	0.173	1.00	0.0698	pCi/g	08/17/15 09:13	08/20/15 20:51	1
Uranium-235/236	0.0828		0.0630	0.0633	1.00	0.0619	pCi/g	08/17/15 09:13	08/20/15 20:51	1
Uranium-238	0.686		0.158	0.168	1.00	0.0665	pCi/g	08/17/15 09:13	08/20/15 20:51	1
Tracer	%Yield	Qualifier	Limits				Prepared		Analyzed	Dil Fac
Uranium-232	82.1		30 - 110				08/17/15 09:13		08/20/15 20:51	1

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: EPA RST2 - RFP No. 337

TestAmerica Job ID: 160-13352-1

Client Sample ID: N002-SS006-2436-01

Lab Sample ID: 160-13352-13

Date Collected: 08/11/15 16:25

Matrix: Solid

Date Received: 08/14/15 13:25

Percent Solids: 82.8

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	13000		220	47	mg/Kg	✉	08/19/15 10:28	08/25/15 16:40	10
Antimony	ND		11	3.4	mg/Kg	✉	08/19/15 10:28	08/25/15 16:40	10
Arsenic	3.4	J B	11	2.6	mg/Kg	✉	08/19/15 10:28	08/25/15 16:40	10
Barium	92	B	55	1.2	mg/Kg	✉	08/19/15 10:28	08/25/15 16:40	10
Beryllium	ND		5.5	0.82	mg/Kg	✉	08/19/15 10:28	08/25/15 16:40	10
Cadmium	ND		5.5	0.37	mg/Kg	✉	08/19/15 10:28	08/25/15 16:40	10
Calcium	50000		2700	74	mg/Kg	✉	08/19/15 10:28	08/25/15 16:40	10
Chromium	20	B	11	1.5	mg/Kg	✉	08/19/15 10:28	08/26/15 14:43	10
Cobalt	12	J	55	1.6	mg/Kg	✉	08/19/15 10:28	08/25/15 16:40	10
Copper	35		27	2.7	mg/Kg	✉	08/19/15 10:28	08/25/15 16:40	10
Iron	24000		110	22	mg/Kg	✉	08/19/15 10:28	08/25/15 16:40	10
Lead	14		11	1.4	mg/Kg	✉	08/19/15 10:28	08/25/15 16:40	10
Magnesium	6800		1100	35	mg/Kg	✉	08/19/15 10:28	08/25/15 16:40	10
Manganese	340		11	0.88	mg/Kg	✉	08/19/15 10:28	08/25/15 16:40	10
Nickel	28	J	44	1.3	mg/Kg	✉	08/19/15 10:28	08/25/15 16:40	10
Potassium	920	J	5500	790	mg/Kg	✉	08/19/15 10:28	08/25/15 16:40	10
Selenium	ND		16	2.3	mg/Kg	✉	08/19/15 10:28	08/25/15 16:40	10
Silver	ND		11	0.77	mg/Kg	✉	08/19/15 10:28	08/25/15 16:40	10
Sodium	ND		1100	83	mg/Kg	✉	08/19/15 10:28	08/25/15 16:40	10
Thallium	2.1	J	22	2.1	mg/Kg	✉	08/19/15 10:28	08/25/15 16:40	10
Vanadium	30	J	55	5.6	mg/Kg	✉	08/19/15 10:28	08/25/15 16:40	10
Zinc	98		55	6.2	mg/Kg	✉	08/19/15 10:28	08/25/15 16:40	10

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.033	J	0.036	0.012	mg/Kg	✉	08/24/15 14:02	08/24/15 23:42	1

Method: A-01-R - Isotopic Thorium (Alpha Spectrometry)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
Thorium-228	0.894		0.207	0.220	1.00	0.0877	pCi/g	08/17/15 09:13	08/20/15 14:18	1
Thorium-230	0.792		0.193	0.204	1.00	0.0563	pCi/g	08/17/15 09:13	08/20/15 14:18	1
Thorium-232	1.02		0.219	0.235	1.00	0.0652	pCi/g	08/17/15 09:13	08/20/15 14:18	1
Tracer	%Yield	Qualifier	Limits				Prepared		Analyzed	Dil Fac
Thorium-229	61.6		30 - 110				08/17/15 09:13		08/20/15 14:18	1

Method: A-01-R - Isotopic Uranium (Alpha Spectrometry)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
Uranium-233/234	0.648		0.154	0.164	1.00	0.0443	pCi/g	08/17/15 09:13	08/20/15 20:51	1
Uranium-235/236	0.0456		0.0456	0.0458	1.00	0.0342	pCi/g	08/17/15 09:13	08/20/15 20:51	1
Uranium-238	0.727		0.164	0.175	1.00	0.0512	pCi/g	08/17/15 09:13	08/20/15 20:51	1
Tracer	%Yield	Qualifier	Limits				Prepared		Analyzed	Dil Fac
Uranium-232	78.5		30 - 110				08/17/15 09:13		08/20/15 20:51	1

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: EPA RST2 - RFP No. 337

TestAmerica Job ID: 160-13352-1

Client Sample ID: N002-TRENCH-0003-01

Date Collected: 08/13/15 08:05

Date Received: 08/14/15 13:25

Lab Sample ID: 160-13352-14

Matrix: Solid

Percent Solids: 95.0

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	4800		930	200	mg/Kg	✉	08/19/15 10:28	08/25/15 16:44	50
Antimony	ND		47	14	mg/Kg	✉	08/19/15 10:28	08/25/15 16:44	50
Arsenic	ND		47	11	mg/Kg	✉	08/19/15 10:28	08/25/15 16:44	50
Barium	320	B	230	5.1	mg/Kg	✉	08/19/15 10:28	08/25/15 16:44	50
Beryllium	ND		23	3.5	mg/Kg	✉	08/19/15 10:28	08/25/15 16:44	50
Cadmium	19	J	23	1.6	mg/Kg	✉	08/19/15 10:28	08/25/15 16:44	50
Calcium	32000		12000	310	mg/Kg	✉	08/19/15 10:28	08/25/15 16:44	50
Chromium	280	B	47	6.4	mg/Kg	✉	08/19/15 10:28	08/25/15 16:44	50
Cobalt	16	J	230	6.7	mg/Kg	✉	08/19/15 10:28	08/25/15 16:44	50
Copper	520		120	11	mg/Kg	✉	08/19/15 10:28	08/25/15 16:44	50
Iron	180000		470	93	mg/Kg	✉	08/19/15 10:28	08/25/15 16:44	50
Lead	1300		47	6.0	mg/Kg	✉	08/19/15 10:28	08/25/15 16:44	50
Magnesium	13000		4700	150	mg/Kg	✉	08/19/15 10:28	08/25/15 16:44	50
Manganese	1400		47	3.7	mg/Kg	✉	08/19/15 10:28	08/25/15 16:44	50
Nickel	270		190	5.4	mg/Kg	✉	08/19/15 10:28	08/25/15 16:44	50
Potassium	ND		23000	3400	mg/Kg	✉	08/19/15 10:28	08/25/15 16:44	50
Selenium	ND		70	9.6	mg/Kg	✉	08/19/15 10:28	08/25/15 16:44	50
Silver	ND		47	3.3	mg/Kg	✉	08/19/15 10:28	08/25/15 16:44	50
Sodium	1600	J B	4700	360	mg/Kg	✉	08/19/15 10:28	08/25/15 16:44	50
Thallium	ND		93	8.9	mg/Kg	✉	08/19/15 10:28	08/25/15 16:44	50
Vanadium	ND		230	24	mg/Kg	✉	08/19/15 10:28	08/25/15 16:44	50
Zinc	760		230	26	mg/Kg	✉	08/19/15 10:28	08/25/15 16:44	50

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	1.7		0.034	0.011	mg/Kg	✉	08/24/15 14:02	08/24/15 23:43	1

Method: A-01-R - Isotopic Thorium (Alpha Spectrometry)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			(2σ+/-)	(2σ+/-)						
Thorium-228	0.198		0.106	0.107	1.00	0.0953	pCi/g	08/17/15 09:13	08/20/15 14:18	1
Thorium-230	0.346		0.135	0.138	1.00	0.0786	pCi/g	08/17/15 09:13	08/20/15 14:18	1
Thorium-232	0.167		0.0952	0.0962	1.00	0.0782	pCi/g	08/17/15 09:13	08/20/15 14:18	1
Tracer	%Yield	Qualifier	Limits				Prepared		Analyzed	Dil Fac
Thorium-229	61.0		30 - 110				08/17/15 09:13		08/20/15 14:18	1

Method: A-01-R - Isotopic Uranium (Alpha Spectrometry)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			(2σ+/-)	(2σ+/-)						
Uranium-233/234	0.244		0.0979	0.100	1.00	0.0690	pCi/g	08/17/15 09:13	08/20/15 20:51	1
Uranium-235/236	0.0114	U	0.0229	0.0229	1.00	0.0343	pCi/g	08/17/15 09:13	08/20/15 20:51	1
Uranium-238	0.245		0.0954	0.0976	1.00	0.0444	pCi/g	08/17/15 09:13	08/20/15 20:51	1
Tracer	%Yield	Qualifier	Limits				Prepared		Analyzed	Dil Fac
Uranium-232	84.2		30 - 110				08/17/15 09:13		08/20/15 20:51	1

Client Sample Results

Client: Weston Solutions, Inc.

Project/Site: EPA RST2 - RFP No. 337

TestAmerica Job ID: 160-13352-1

Client Sample ID: N003-SS001-1022-01

Lab Sample ID: 160-13352-15

Date Collected: 08/11/15 11:30

Matrix: Solid

Date Received: 08/14/15 13:25

Percent Solids: 77.1

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	7900		240	51	mg/Kg	✉	08/19/15 10:28	08/25/15 16:48	10
Antimony	ND		12	3.7	mg/Kg	✉	08/19/15 10:28	08/25/15 16:48	10
Arsenic	4.5	J B	12	2.8	mg/Kg	✉	08/19/15 10:28	08/25/15 16:48	10
Barium	110	B	60	1.3	mg/Kg	✉	08/19/15 10:28	08/25/15 16:48	10
Beryllium	ND		6.0	0.89	mg/Kg	✉	08/19/15 10:28	08/25/15 16:48	10
Cadmium	ND		6.0	0.41	mg/Kg	✉	08/19/15 10:28	08/25/15 16:48	10
Calcium	57000		3000	80	mg/Kg	✉	08/19/15 10:28	08/25/15 16:48	10
Chromium	970	B	12	1.6	mg/Kg	✉	08/19/15 10:28	08/25/15 16:48	10
Cobalt	16	J	60	1.7	mg/Kg	✉	08/19/15 10:28	08/25/15 16:48	10
Copper	50		30	2.9	mg/Kg	✉	08/19/15 10:28	08/25/15 16:48	10
Iron	14000		120	24	mg/Kg	✉	08/19/15 10:28	08/25/15 16:48	10
Lead	37		12	1.5	mg/Kg	✉	08/19/15 10:28	08/25/15 16:48	10
Magnesium	30000		1200	38	mg/Kg	✉	08/19/15 10:28	08/25/15 16:48	10
Manganese	2500		12	0.95	mg/Kg	✉	08/19/15 10:28	08/25/15 16:48	10
Nickel	39	J	48	1.4	mg/Kg	✉	08/19/15 10:28	08/25/15 16:48	10
Potassium	ND		6000	860	mg/Kg	✉	08/19/15 10:28	08/25/15 16:48	10
Selenium	ND		18	2.5	mg/Kg	✉	08/19/15 10:28	08/25/15 16:48	10
Silver	ND		12	0.83	mg/Kg	✉	08/19/15 10:28	08/25/15 16:48	10
Sodium	460	J B	1200	91	mg/Kg	✉	08/19/15 10:28	08/25/15 16:48	10
Thallium	ND		24	2.3	mg/Kg	✉	08/19/15 10:28	08/25/15 16:48	10
Vanadium	18	J	60	6.0	mg/Kg	✉	08/19/15 10:28	08/25/15 16:48	10
Zinc	85		60	6.7	mg/Kg	✉	08/19/15 10:28	08/25/15 16:48	10

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.15		0.040	0.013	mg/Kg	✉	08/24/15 14:02	08/24/15 23:45	1

Method: A-01-R - Isotopic Thorium (Alpha Spectrometry)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Thorium-228	0.558		0.146	0.154	1.00	0.0950	pCi/g	08/17/15 09:13	08/20/15 14:18	1
Thorium-230	0.743		0.164	0.175	1.00	0.0661	pCi/g	08/17/15 09:13	08/20/15 14:18	1
Thorium-232	0.587		0.143	0.152	1.00	0.0263	pCi/g	08/17/15 09:13	08/20/15 14:18	1
Tracer	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Thorium-229	84.9		30 - 110					08/17/15 09:13	08/20/15 14:18	1

Method: A-01-R - Isotopic Uranium (Alpha Spectrometry)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Uranium-233/234	0.874		0.177	0.191	1.00	0.0739	pCi/g	08/17/15 09:13	08/20/15 20:51	1
Uranium-235/236	0.0594	U	0.0535	0.0537	1.00	0.0605	pCi/g	08/17/15 09:13	08/20/15 20:51	1
Uranium-238	0.860		0.173	0.188	1.00	0.0536	pCi/g	08/17/15 09:13	08/20/15 20:51	1
Tracer	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Uranium-232	86.0		30 - 110					08/17/15 09:13	08/20/15 20:51	1

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: EPA RST2 - RFP No. 337

TestAmerica Job ID: 160-13352-1

Client Sample ID: N003-SS002-2436-01

Lab Sample ID: 160-13352-16

Date Collected: 08/11/15 11:45

Matrix: Solid

Date Received: 08/14/15 13:25

Percent Solids: 84.5

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	11000		210	44	mg/Kg	✉	08/19/15 10:28	08/25/15 16:52	10
Antimony	ND		10	3.2	mg/Kg	✉	08/19/15 10:28	08/25/15 16:52	10
Arsenic	2.4	J B	10	2.4	mg/Kg	✉	08/19/15 10:28	08/25/15 16:52	10
Barium	100	B	52	1.1	mg/Kg	✉	08/19/15 10:28	08/25/15 16:52	10
Beryllium	ND		5.2	0.78	mg/Kg	✉	08/19/15 10:28	08/25/15 16:52	10
Cadmium	ND		5.2	0.35	mg/Kg	✉	08/19/15 10:28	08/25/15 16:52	10
Calcium	66000		2600	70	mg/Kg	✉	08/19/15 10:28	08/25/15 16:52	10
Chromium	18	B	10	1.4	mg/Kg	✉	08/19/15 10:28	08/26/15 15:08	10
Cobalt	8.7	J	52	1.5	mg/Kg	✉	08/19/15 10:28	08/25/15 16:52	10
Copper	24	J	26	2.5	mg/Kg	✉	08/19/15 10:28	08/25/15 16:52	10
Iron	19000		100	21	mg/Kg	✉	08/19/15 10:28	08/25/15 16:52	10
Lead	22		10	1.3	mg/Kg	✉	08/19/15 10:28	08/25/15 16:52	10
Magnesium	17000		1000	33	mg/Kg	✉	08/19/15 10:28	08/25/15 16:52	10
Manganese	1900		10	0.83	mg/Kg	✉	08/19/15 10:28	08/25/15 16:52	10
Nickel	18	J	41	1.2	mg/Kg	✉	08/19/15 10:28	08/25/15 16:52	10
Potassium	1300	J	5200	750	mg/Kg	✉	08/19/15 10:28	08/25/15 16:52	10
Selenium	ND		16	2.1	mg/Kg	✉	08/19/15 10:28	08/25/15 16:52	10
Silver	ND		10	0.72	mg/Kg	✉	08/19/15 10:28	08/25/15 16:52	10
Sodium	140	J B	1000	79	mg/Kg	✉	08/19/15 10:28	08/25/15 16:52	10
Thallium	ND		21	2.0	mg/Kg	✉	08/19/15 10:28	08/25/15 16:52	10
Vanadium	19	J	52	5.2	mg/Kg	✉	08/19/15 10:28	08/25/15 16:52	10
Zinc	100		52	5.8	mg/Kg	✉	08/19/15 10:28	08/25/15 16:52	10

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.019	J	0.035	0.012	mg/Kg	✉	08/24/15 14:02	08/24/15 23:47	1

Method: A-01-R - Isotopic Thorium (Alpha Spectrometry)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			(2σ+/-)	(2σ+/-)						
Thorium-228	0.635		0.152	0.161	1.00	0.0816	pCi/g	08/17/15 09:13	08/20/15 14:18	1
Thorium-230	0.798		0.167	0.180	1.00	0.0418	pCi/g	08/17/15 09:13	08/20/15 14:18	1
Thorium-232	0.506		0.133	0.140	1.00	0.0485	pCi/g	08/17/15 09:13	08/20/15 14:18	1
Tracer	%Yield	Qualifier	Limits				Prepared		Analyzed	Dil Fac
Thorium-229	87.1		30 - 110				08/17/15 09:13		08/20/15 14:18	1

Method: A-01-R - Isotopic Uranium (Alpha Spectrometry)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			(2σ+/-)	(2σ+/-)						
Uranium-233/234	0.480		0.134	0.140	1.00	0.0568	pCi/g	08/17/15 09:13	08/20/15 20:51	1
Uranium-235/236	0.000	U	0.00572	0.00572	1.00	0.0343	pCi/g	08/17/15 09:13	08/20/15 20:51	1
Uranium-238	0.523		0.140	0.147	1.00	0.0612	pCi/g	08/17/15 09:13	08/20/15 20:51	1
Tracer	%Yield	Qualifier	Limits				Prepared		Analyzed	Dil Fac
Uranium-232	82.3		30 - 110				08/17/15 09:13		08/20/15 20:51	1

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: EPA RST2 - RFP No. 337

TestAmerica Job ID: 160-13352-1

Client Sample ID: N003-SS003-1224-01

Lab Sample ID: 160-13352-17

Date Collected: 08/11/15 12:30

Matrix: Solid

Date Received: 08/14/15 13:25

Percent Solids: 93.0

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	13000		190	41	mg/Kg	✉	08/19/15 10:28	08/25/15 16:56	10
Antimony	ND	F1	9.5	2.9	mg/Kg	✉	08/19/15 10:28	08/25/15 16:56	10
Arsenic	3.3	J B	9.5	2.2	mg/Kg	✉	08/19/15 10:28	08/25/15 16:56	10
Barium	150	F1 B	48	1.0	mg/Kg	✉	08/19/15 10:28	08/25/15 16:56	10
Beryllium	ND		4.8	0.71	mg/Kg	✉	08/19/15 10:28	08/25/15 16:56	10
Cadmium	0.57	J	4.8	0.32	mg/Kg	✉	08/19/15 10:28	08/25/15 16:56	10
Calcium	44000	F2	2400	64	mg/Kg	✉	08/19/15 10:28	08/25/15 16:56	10
Chromium	860	F2 B	9.5	1.3	mg/Kg	✉	08/19/15 10:28	08/25/15 16:56	10
Cobalt	11	J	48	1.4	mg/Kg	✉	08/19/15 10:28	08/25/15 16:56	10
Copper	20	J	24	2.3	mg/Kg	✉	08/19/15 10:28	08/25/15 16:56	10
Iron	19000		95	19	mg/Kg	✉	08/19/15 10:28	08/25/15 16:56	10
Lead	64		9.5	1.2	mg/Kg	✉	08/19/15 10:28	08/25/15 16:56	10
Magnesium	17000	F2	950	30	mg/Kg	✉	08/19/15 10:28	08/25/15 16:56	10
Manganese	1300		9.5	0.76	mg/Kg	✉	08/19/15 10:28	08/25/15 16:56	10
Nickel	25	J	38	1.1	mg/Kg	✉	08/19/15 10:28	08/25/15 16:56	10
Potassium	1100	J F1	4800	690	mg/Kg	✉	08/19/15 10:28	08/25/15 16:56	10
Selenium	ND		14	2.0	mg/Kg	✉	08/19/15 10:28	08/25/15 16:56	10
Silver	ND		9.5	0.67	mg/Kg	✉	08/19/15 10:28	08/25/15 16:56	10
Sodium	770	J F1 B	950	73	mg/Kg	✉	08/19/15 10:28	08/25/15 16:56	10
Thallium	ND		19	1.8	mg/Kg	✉	08/19/15 10:28	08/25/15 16:56	10
Vanadium	29	J	48	4.8	mg/Kg	✉	08/19/15 10:28	08/25/15 16:56	10
Zinc	270	F1	48	5.4	mg/Kg	✉	08/19/15 10:28	08/25/15 16:56	10

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.19		0.033	0.011	mg/Kg	✉	08/24/15 14:02	08/24/15 23:49	1

Method: A-01-R - Isotopic Thorium (Alpha Spectrometry)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			(2σ+/-)	(2σ+/-)						
Thorium-228	2.31		0.273	0.335	1.00	0.0842	pCi/g	08/17/15 09:13	08/20/15 14:18	1
Thorium-230	1.65		0.230	0.268	1.00	0.0461	pCi/g	08/17/15 09:13	08/20/15 14:18	1
Thorium-232	2.28		0.269	0.330	1.00	0.0444	pCi/g	08/17/15 09:13	08/20/15 14:18	1
Tracer	%Yield	Qualifier	Limits				Prepared		Analyzed	Dil Fac
Thorium-229	90.7		30 - 110				08/17/15 09:13		08/20/15 14:18	1

Method: A-01-R - Isotopic Uranium (Alpha Spectrometry)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			(2σ+/-)	(2σ+/-)						
Uranium-233/234	1.73		0.264	0.301	1.00	0.0618	pCi/g	08/17/15 09:13	08/20/15 20:51	1
Uranium-235/236	0.0373	U	0.0513	0.0514	1.00	0.0831	pCi/g	08/17/15 09:13	08/20/15 20:51	1
Uranium-238	1.62		0.255	0.289	1.00	0.0559	pCi/g	08/17/15 09:13	08/20/15 20:51	1
Tracer	%Yield	Qualifier	Limits				Prepared		Analyzed	Dil Fac
Uranium-232	72.1		30 - 110				08/17/15 09:13		08/20/15 20:51	1

Client Sample Results

Client: Weston Solutions, Inc.

Project/Site: EPA RST2 - RFP No. 337

TestAmerica Job ID: 160-13352-1

Client Sample ID: N003-SS003-1224-02

Date Collected: 08/11/15 12:30

Date Received: 08/14/15 13:25

Lab Sample ID: 160-13352-18

Matrix: Solid

Percent Solids: 93.9

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	12000		200	42	mg/Kg	✉	08/19/15 10:28	08/25/15 17:25	10
Antimony	ND		9.8	3.0	mg/Kg	✉	08/19/15 10:28	08/25/15 17:25	10
Arsenic	2.4	J B	9.8	2.3	mg/Kg	✉	08/19/15 10:28	08/25/15 17:25	10
Barium	96	B	49	1.1	mg/Kg	✉	08/19/15 10:28	08/25/15 17:25	10
Beryllium	ND		4.9	0.73	mg/Kg	✉	08/19/15 10:28	08/25/15 17:25	10
Cadmium	ND		4.9	0.33	mg/Kg	✉	08/19/15 10:28	08/25/15 17:25	10
Calcium	54000		2400	66	mg/Kg	✉	08/19/15 10:28	08/25/15 17:25	10
Chromium	790	B	9.8	1.3	mg/Kg	✉	08/19/15 10:28	08/25/15 17:25	10
Cobalt	11	J	49	1.4	mg/Kg	✉	08/19/15 10:28	08/25/15 17:25	10
Copper	16	J	24	2.4	mg/Kg	✉	08/19/15 10:28	08/25/15 17:25	10
Iron	19000		98	19	mg/Kg	✉	08/19/15 10:28	08/25/15 17:25	10
Lead	62		9.8	1.3	mg/Kg	✉	08/19/15 10:28	08/25/15 17:25	10
Magnesium	21000		980	31	mg/Kg	✉	08/19/15 10:28	08/25/15 17:25	10
Manganese	560		9.8	0.78	mg/Kg	✉	08/19/15 10:28	08/25/15 17:25	10
Nickel	25	J	39	1.1	mg/Kg	✉	08/19/15 10:28	08/25/15 17:25	10
Potassium	1100	J	4900	710	mg/Kg	✉	08/19/15 10:28	08/25/15 17:25	10
Selenium	ND		15	2.0	mg/Kg	✉	08/19/15 10:28	08/25/15 17:25	10
Silver	ND		9.8	0.68	mg/Kg	✉	08/19/15 10:28	08/25/15 17:25	10
Sodium	680	J B	980	74	mg/Kg	✉	08/19/15 10:28	08/25/15 17:25	10
Thallium	ND		20	1.9	mg/Kg	✉	08/19/15 10:28	08/25/15 17:25	10
Vanadium	29	J	49	5.0	mg/Kg	✉	08/19/15 10:28	08/25/15 17:25	10
Zinc	170		49	5.5	mg/Kg	✉	08/19/15 10:28	08/25/15 17:25	10

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.078		0.031	0.010	mg/Kg	✉	08/24/15 14:02	08/25/15 00:01	1

Method: A-01-R - Isotopic Thorium (Alpha Spectrometry)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			(2σ+/-)	(2σ+/-)						
Thorium-228	2.63		0.304	0.376	1.00	0.0933	pCi/g	08/17/15 09:13	08/20/15 14:18	1
Thorium-230	1.96		0.261	0.309	1.00	0.0577	pCi/g	08/17/15 09:13	08/20/15 14:18	1
Thorium-232	2.79		0.311	0.389	1.00	0.0574	pCi/g	08/17/15 09:13	08/20/15 14:18	1
Tracer	%Yield	Qualifier	Limits				Prepared		Analyzed	Dil Fac
Thorium-229	86.6		30 - 110				08/17/15 09:13		08/20/15 14:18	1

Method: A-01-R - Isotopic Uranium (Alpha Spectrometry)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			(2σ+/-)	(2σ+/-)						
Uranium-233/234	1.74		0.256	0.295	1.00	0.0732	pCi/g	08/17/15 09:13	08/20/15 20:50	1
Uranium-235/236	0.101		0.0697	0.0702	1.00	0.0560	pCi/g	08/17/15 09:13	08/20/15 20:50	1
Uranium-238	1.84		0.262	0.304	1.00	0.0520	pCi/g	08/17/15 09:13	08/20/15 20:50	1
Tracer	%Yield	Qualifier	Limits				Prepared		Analyzed	Dil Fac
Uranium-232	80.3		30 - 110				08/17/15 09:13		08/20/15 20:50	1

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: EPA RST2 - RFP No. 337

TestAmerica Job ID: 160-13352-1

Client Sample ID: RB-N-150811
Date Collected: 08/11/15 19:30
Date Received: 08/14/15 13:25

Lab Sample ID: 160-13352-19
Matrix: Water

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		200	22	ug/L		08/17/15 15:17	08/19/15 12:36	1
Antimony	ND		10	3.7	ug/L		08/17/15 15:17	08/19/15 12:36	1
Arsenic	ND		10	1.8	ug/L		08/17/15 15:17	08/19/15 12:36	1
Barium	18 J		50	2.1	ug/L		08/17/15 15:17	08/19/15 12:36	1
Beryllium	0.30 J		5.0	0.28	ug/L		08/17/15 15:17	08/19/15 12:36	1
Cadmium	ND		5.0	0.34	ug/L		08/17/15 15:17	08/19/15 12:36	1
Calcium	8000		1000	54	ug/L		08/17/15 15:17	08/19/15 12:36	1
Chromium	ND		10	3.4	ug/L		08/17/15 15:17	08/21/15 07:41	1
Cobalt	ND		50	2.7	ug/L		08/17/15 15:17	08/19/15 12:36	1
Copper	140 B		25	2.1	ug/L		08/17/15 15:17	08/19/15 12:36	1
Iron	19 J		100	13	ug/L		08/17/15 15:17	08/19/15 12:36	1
Lead	1.5 J B		10	0.60	ug/L		08/17/15 15:17	08/19/15 12:36	1
Magnesium	2100		1000	51	ug/L		08/17/15 15:17	08/19/15 12:36	1
Manganese	1.6 J		15	1.0	ug/L		08/17/15 15:17	08/19/15 12:36	1
Nickel	ND		40	2.6	ug/L		08/17/15 15:17	08/19/15 12:36	1
Potassium	800 J		5000	460	ug/L		08/17/15 15:17	08/19/15 12:36	1
Selenium	ND		15	2.1	ug/L		08/17/15 15:17	08/19/15 12:36	1
Silver	ND		10	0.99	ug/L		08/17/15 15:17	08/19/15 12:36	1
Sodium	16000		1000	110	ug/L		08/17/15 15:17	08/19/15 12:36	1
Thallium	ND		20	2.4	ug/L		08/17/15 15:17	08/19/15 12:36	1
Vanadium	ND		50	4.4	ug/L		08/17/15 15:17	08/19/15 12:36	1
Zinc	280		20	8.3	ug/L		08/17/15 15:17	08/21/15 07:41	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.060	ug/L		08/18/15 14:10	08/21/15 09:08	1

Method: A-01-R - Isotopic Thorium (Alpha Spectrometry)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
Thorium-228	0.0228 U		0.0889	0.0890	1.00	0.185	pCi/L	08/17/15 11:51	08/20/15 14:07	1
Thorium-230	0.222		0.137	0.139	1.00	0.139	pCi/L	08/17/15 11:51	08/20/15 14:07	1
Thorium-232	0.000 U		0.0575	0.0575	1.00	0.149	pCi/L	08/17/15 11:51	08/20/15 14:07	1
Tracer	%Yield	Qualifier	Limits				Prepared			Dil Fac
Thorium-229	78.7		30 - 110				08/17/15 11:51			1

Method: A-01-R - Isotopic Uranium (Alpha Spectrometry)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
Uranium-233/234	0.0423 U		0.0802	0.0803	1.00	0.149	pCi/L	08/17/15 11:51	08/20/15 14:10	1
Uranium-235/236	0.000 U		0.0105	0.0105	1.00	0.0631	pCi/L	08/17/15 11:51	08/20/15 14:10	1
Uranium-238	0.0295 U		0.0614	0.0615	1.00	0.120	pCi/L	08/17/15 11:51	08/20/15 14:10	1
Tracer	%Yield	Qualifier	Limits				Prepared			Dil Fac
Uranium-232	86.0		30 - 110				08/17/15 11:51			1

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: EPA RST2 - RFP No. 337

TestAmerica Job ID: 160-13352-1

Client Sample ID: RB-N-150811
Date Collected: 08/11/15 19:30
Date Received: 08/14/15 13:25

Lab Sample ID: 160-13352-19
Matrix: Water

Method: GA-01-R - Cesium-137 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Cesium-137	6.36	U	7.31	7.33	20.0	11.7	pCi/L	08/19/15 13:48	08/19/15 18:01	1
Other Detected Radionuclides										
Other Detected Radionuclide	None						pCi/L	08/19/15 13:48	08/19/15 18:01	1

Client Sample ID: RB-N-150812

Date Collected: 08/12/15 15:45
Date Received: 08/14/15 13:25

Lab Sample ID: 160-13352-20

Matrix: Water

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		200	22	ug/L		08/17/15 15:17	08/19/15 12:51	1
Antimony	ND		10	3.7	ug/L		08/17/15 15:17	08/19/15 12:51	1
Arsenic	ND		10	1.8	ug/L		08/17/15 15:17	08/19/15 12:51	1
Barium	ND		50	2.1	ug/L		08/17/15 15:17	08/19/15 12:51	1
Beryllium	ND		5.0	0.28	ug/L		08/17/15 15:17	08/19/15 12:51	1
Cadmium	ND		5.0	0.34	ug/L		08/17/15 15:17	08/19/15 12:51	1
Calcium	60	J	1000	54	ug/L		08/17/15 15:17	08/19/15 12:51	1
Chromium	ND		10	3.4	ug/L		08/17/15 15:17	08/21/15 07:56	1
Cobalt	ND		50	2.7	ug/L		08/17/15 15:17	08/19/15 12:51	1
Copper	3.1	J B	25	2.1	ug/L		08/17/15 15:17	08/19/15 12:51	1
Iron	ND		100	13	ug/L		08/17/15 15:17	08/19/15 12:51	1
Lead	0.60	J B	10	0.60	ug/L		08/17/15 15:17	08/19/15 12:51	1
Magnesium	ND		1000	51	ug/L		08/17/15 15:17	08/19/15 12:51	1
Manganese	ND		15	1.0	ug/L		08/17/15 15:17	08/19/15 12:51	1
Nickel	ND		40	2.6	ug/L		08/17/15 15:17	08/19/15 12:51	1
Potassium	ND		5000	460	ug/L		08/17/15 15:17	08/19/15 12:51	1
Selenium	ND		15	2.1	ug/L		08/17/15 15:17	08/19/15 12:51	1
Silver	ND		10	0.99	ug/L		08/17/15 15:17	08/19/15 12:51	1
Sodium	ND		1000	110	ug/L		08/17/15 15:17	08/19/15 12:51	1
Thallium	ND		20	2.4	ug/L		08/17/15 15:17	08/19/15 12:51	1
Vanadium	ND		50	4.4	ug/L		08/17/15 15:17	08/19/15 12:51	1
Zinc	ND		20	8.3	ug/L		08/17/15 15:17	08/21/15 07:56	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.060	ug/L		08/21/15 13:49	08/21/15 19:41	1

Method: A-01-R - Isotopic Thorium (Alpha Spectrometry)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Thorium-228	0.0331	U	0.0788	0.0789	1.00	0.154	pCi/L	08/17/15 11:51	08/20/15 14:07	1
Thorium-230	0.190		0.122	0.123	1.00	0.129	pCi/L	08/17/15 11:51	08/20/15 14:07	1
Thorium-232	0.000	U	0.0366	0.0366	1.00	0.109	pCi/L	08/17/15 11:51	08/20/15 14:07	1

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: EPA RST2 - RFP No. 337

TestAmerica Job ID: 160-13352-1

Client Sample ID: RB-N-150812

Lab Sample ID: 160-13352-20

Date Collected: 08/12/15 15:45

Matrix: Water

Date Received: 08/14/15 13:25

Tracer	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Thorium-229	93.9		30 - 110	08/17/15 11:51	08/20/15 14:07	1

Method: A-01-R - Isotopic Uranium (Alpha Spectrometry)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	(2σ+/-)						
Uranium-233/234	0.0141	U	0.0573	0.0573	1.00	0.134	pCi/L	08/17/15 11:51	08/20/15 14:10	1
Uranium-235/236	0.000	U	0.0117	0.0117	1.00	0.0703	pCi/L	08/17/15 11:51	08/20/15 14:10	1
Uranium-238	0.0329	U	0.0540	0.0541	1.00	0.0910	pCi/L	08/17/15 11:51	08/20/15 14:10	1

Tracer	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Uranium-232	76.9		30 - 110	08/17/15 11:51	08/20/15 14:10	1

Method: GA-01-R - Cesium-137 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	(2σ+/-)						
Cesium-137	-0.473	U	5.60	5.60	20.0	10.3	pCi/L	08/19/15 13:48	08/19/15 18:02	1

Other Detected Radionuclides	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	(2σ+/-)						
Other Detected Radionuclide	None						pCi/L	08/19/15 13:48	08/19/15 18:02	1

QC Sample Results

Client: Weston Solutions, Inc.
Project/Site: EPA RST2 - RFP No. 337

TestAmerica Job ID: 160-13352-1

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 160-206067/1-A

Matrix: Water

Analysis Batch: 206636

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 206067

Analyte	MB	MB	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier									
Aluminum	22.6	J	200		22	ug/L		08/17/15 15:17	08/19/15 12:15		1
Antimony	ND		10		3.7	ug/L		08/17/15 15:17	08/19/15 12:15		1
Arsenic	ND		10		1.8	ug/L		08/17/15 15:17	08/19/15 12:15		1
Barium	ND		50		2.1	ug/L		08/17/15 15:17	08/19/15 12:15		1
Beryllium	ND		5.0		0.28	ug/L		08/17/15 15:17	08/19/15 12:15		1
Cadmium	ND		5.0		0.34	ug/L		08/17/15 15:17	08/19/15 12:15		1
Calcium	ND		1000		54	ug/L		08/17/15 15:17	08/19/15 12:15		1
Cobalt	ND		50		2.7	ug/L		08/17/15 15:17	08/19/15 12:15		1
Copper	2.40	J	25		2.1	ug/L		08/17/15 15:17	08/19/15 12:15		1
Iron	ND		100		13	ug/L		08/17/15 15:17	08/19/15 12:15		1
Lead	0.600	J	10		0.60	ug/L		08/17/15 15:17	08/19/15 12:15		1
Magnesium	ND		1000		51	ug/L		08/17/15 15:17	08/19/15 12:15		1
Manganese	ND		15		1.0	ug/L		08/17/15 15:17	08/19/15 12:15		1
Nickel	ND		40		2.6	ug/L		08/17/15 15:17	08/19/15 12:15		1
Potassium	ND		5000		460	ug/L		08/17/15 15:17	08/19/15 12:15		1
Selenium	ND		15		2.1	ug/L		08/17/15 15:17	08/19/15 12:15		1
Silver	ND		10		0.99	ug/L		08/17/15 15:17	08/19/15 12:15		1
Sodium	ND		1000		110	ug/L		08/17/15 15:17	08/19/15 12:15		1
Thallium	ND		20		2.4	ug/L		08/17/15 15:17	08/19/15 12:15		1
Vanadium	ND		50		4.4	ug/L		08/17/15 15:17	08/19/15 12:15		1

Lab Sample ID: MB 160-206067/1-A

Matrix: Water

Analysis Batch: 207295

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 206067

Analyte	MB	MB	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier									
Chromium	ND		10			3.4	ug/L		08/17/15 15:17	08/21/15 07:33	
Zinc	ND		20			8.3	ug/L		08/17/15 15:17	08/21/15 07:33	

Lab Sample ID: LCS 160-206067/2-A

Matrix: Water

Analysis Batch: 206636

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 206067

Analyte	Spike Added	LCSS	LCSS	Result	Qualifier	Unit	D	%Rec	Limits
		Added	Result						
Aluminum	10000		9120			ug/L		91	80 - 120
Antimony	500		470			ug/L		94	80 - 120
Arsenic	1000		887			ug/L		89	80 - 120
Barium	1000		948			ug/L		95	80 - 120
Beryllium	1000		924			ug/L		92	80 - 120
Cadmium	1000		908			ug/L		91	80 - 120
Calcium	10000		9990			ug/L		100	80 - 120
Cobalt	1000		991			ug/L		99	80 - 120
Copper	1000		955			ug/L		96	80 - 120
Iron	10000		9330			ug/L		93	80 - 120
Lead	1000		959			ug/L		96	80 - 120
Magnesium	10000		8360			ug/L		84	80 - 120
Manganese	1000		899			ug/L		90	80 - 120
Nickel	1000		973			ug/L		97	80 - 120

QC Sample Results

Client: Weston Solutions, Inc.

Project/Site: EPA RST2 - RFP No. 337

TestAmerica Job ID: 160-13352-1

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: LCS 160-206067/2-A

Matrix: Water

Analysis Batch: 206636

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 206067

%Rec.

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Potassium	10000	9250		ug/L		93	80 - 120
Selenium	500	457		ug/L		91	80 - 120
Silver	200	187		ug/L		94	80 - 120
Sodium	10000	9430		ug/L		94	80 - 120
Thallium	200	201		ug/L		101	80 - 120
Vanadium	1000	877		ug/L		88	80 - 120

Lab Sample ID: LCS 160-206067/2-A

Matrix: Water

Analysis Batch: 207295

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 206067

%Rec.

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Chromium	1000	1010		ug/L		101	80 - 120
Zinc	1000	967		ug/L		97	80 - 120

Lab Sample ID: 160-13352-19 MS

Matrix: Water

Analysis Batch: 206636

Client Sample ID: RB-N-150811

Prep Type: Total/NA

Prep Batch: 206067

%Rec.

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Aluminum	ND		10000	9400		ug/L		94	75 - 125
Antimony	ND		500	476		ug/L		95	75 - 125
Arsenic	ND		1000	904		ug/L		90	75 - 125
Barium	18	J	1000	983		ug/L		97	75 - 125
Beryllium	0.30	J	1000	943		ug/L		94	75 - 125
Cadmium	ND		1000	924		ug/L		92	75 - 125
Calcium	8000		10000	17500		ug/L		95	75 - 125
Cobalt	ND		1000	996		ug/L		100	75 - 125
Copper	140	B	1000	1090		ug/L		95	75 - 125
Iron	19	J	10000	9540		ug/L		95	75 - 125
Lead	1.5	J B	1000	963		ug/L		96	75 - 125
Magnesium	2100		10000	10600		ug/L		85	75 - 125
Manganese	1.6	J	1000	914		ug/L		91	75 - 125
Nickel	ND		1000	976		ug/L		98	75 - 125
Potassium	800	J	10000	10400		ug/L		96	75 - 125
Selenium	ND		500	479		ug/L		96	75 - 125
Silver	ND		200	193		ug/L		96	75 - 125
Sodium	16000		10000	26200		ug/L		99	75 - 125
Thallium	ND		200	203		ug/L		102	75 - 125
Vanadium	ND		1000	896		ug/L		90	75 - 125

Lab Sample ID: 160-13352-19 MS

Matrix: Water

Analysis Batch: 207295

Client Sample ID: RB-N-150811

Prep Type: Total/NA

Prep Batch: 206067

%Rec.

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Chromium	ND		1000	996		ug/L		100	75 - 125
Zinc	280		1000	1240		ug/L		96	75 - 125

QC Sample Results

Client: Weston Solutions, Inc.

Project/Site: EPA RST2 - RFP No. 337

TestAmerica Job ID: 160-13352-1

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: 160-13352-19 MSD

Matrix: Water

Analysis Batch: 206636

Client Sample ID: RB-N-150811

Prep Type: Total/NA

Prep Batch: 206067

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	Limits	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier						
Aluminum	ND		10000	9300		ug/L		93	75 - 125	1	20
Antimony	ND		500	481		ug/L		96	75 - 125	1	20
Arsenic	ND		1000	925		ug/L		92	75 - 125	2	20
Barium	18 J		1000	975		ug/L		96	75 - 125	1	20
Beryllium	0.30 J		1000	950		ug/L		95	75 - 125	1	20
Cadmium	ND		1000	943		ug/L		94	75 - 125	2	20
Calcium	8000		10000	17900		ug/L		99	75 - 125	2	20
Cobalt	ND		1000	1020		ug/L		102	75 - 125	2	20
Copper	140 B		1000	1110		ug/L		97	75 - 125	2	20
Iron	19 J		10000	9620		ug/L		96	75 - 125	1	20
Lead	1.5 JB		1000	985		ug/L		98	75 - 125	2	20
Magnesium	2100		10000	10800		ug/L		87	75 - 125	2	20
Manganese	1.6 J		1000	923		ug/L		92	75 - 125	1	20
Nickel	ND		1000	999		ug/L		100	75 - 125	2	20
Potassium	800 J		10000	10300		ug/L		95	75 - 125	1	20
Selenium	ND		500	481		ug/L		96	75 - 125	0	20
Silver	ND		200	197		ug/L		98	75 - 125	2	20
Sodium	16000		10000	25800		ug/L		94	75 - 125	2	20
Thallium	ND		200	206		ug/L		103	75 - 125	1	20
Vanadium	ND		1000	905		ug/L		91	75 - 125	1	20

Lab Sample ID: 160-13352-19 MSD

Matrix: Water

Analysis Batch: 207295

Client Sample ID: RB-N-150811

Prep Type: Total/NA

Prep Batch: 206067

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	Limits	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier						
Chromium	ND		1000	997		ug/L		100	75 - 125	0	20
Zinc	280		1000	1250		ug/L		97	75 - 125	0	20

Lab Sample ID: MB 160-206471/1-A

Matrix: Solid

Analysis Batch: 207910

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 206471

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Aluminum	ND		19	3.9	mg/Kg		08/19/15 10:28	08/25/15 15:31	1
Antimony	ND		0.93	0.29	mg/Kg		08/19/15 10:28	08/25/15 15:31	1
Arsenic	ND		0.93	0.22	mg/Kg		08/19/15 10:28	08/25/15 15:31	1
Barium	ND		4.6	0.10	mg/Kg		08/19/15 10:28	08/25/15 15:31	1
Beryllium	ND		0.46	0.069	mg/Kg		08/19/15 10:28	08/25/15 15:31	1
Cadmium	ND		0.46	0.031	mg/Kg		08/19/15 10:28	08/25/15 15:31	1
Calcium	ND		230	6.2	mg/Kg		08/19/15 10:28	08/25/15 15:31	1
Chromium	ND		0.93	0.13	mg/Kg		08/19/15 10:28	08/25/15 15:31	1
Cobalt	ND		4.6	0.13	mg/Kg		08/19/15 10:28	08/25/15 15:31	1
Copper	ND		2.3	0.23	mg/Kg		08/19/15 10:28	08/25/15 15:31	1
Iron	ND		9.3	1.8	mg/Kg		08/19/15 10:28	08/25/15 15:31	1
Lead	ND		0.93	0.12	mg/Kg		08/19/15 10:28	08/25/15 15:31	1
Magnesium	ND		93	2.9	mg/Kg		08/19/15 10:28	08/25/15 15:31	1
Manganese	ND		0.93	0.074	mg/Kg		08/19/15 10:28	08/25/15 15:31	1

QC Sample Results

Client: Weston Solutions, Inc.
Project/Site: EPA RST2 - RFP No. 337

TestAmerica Job ID: 160-13352-1

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: MB 160-206471/1-A
Matrix: Solid
Analysis Batch: 207910

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 206471

Analyte	MB	MB	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nickel		ND			3.7	0.11	mg/Kg		08/19/15 10:28	08/25/15 15:31	1
Potassium		ND			460	67	mg/Kg		08/19/15 10:28	08/25/15 15:31	1
Selenium		ND			1.4	0.19	mg/Kg		08/19/15 10:28	08/25/15 15:31	1
Silver		ND			0.93	0.065	mg/Kg		08/19/15 10:28	08/25/15 15:31	1
Sodium		ND			93	7.1	mg/Kg		08/19/15 10:28	08/25/15 15:31	1
Thallium		ND			1.9	0.18	mg/Kg		08/19/15 10:28	08/25/15 15:31	1
Vanadium		ND			4.6	0.47	mg/Kg		08/19/15 10:28	08/25/15 15:31	1
Zinc		ND			4.6	0.52	mg/Kg		08/19/15 10:28	08/25/15 15:31	1

Lab Sample ID: MB 160-206471/1-A
Matrix: Solid
Analysis Batch: 208000

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 206471

Analyte	MB	MB	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium		0.213	J		0.93	0.13	mg/Kg		08/19/15 10:28	08/26/15 13:33	1

Lab Sample ID: LCSSRM 160-206471/2-A
Matrix: Solid
Analysis Batch: 207910

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 206471
%Rec.

Analyte	Spike Added	LCSSRM	LCSSRM	Unit	D	%Rec	Limits
		Result	Qualifier				
Aluminum	8060	6020		mg/Kg		74.7	39.5 - 160.
							0
Antimony	94.0	43.1		mg/Kg		45.9	22.8 - 257.
							4
Arsenic	113	96.5	B	mg/Kg		85.4	69.7 - 142.
							5
Barium	155	139	B	mg/Kg		89.6	72.9 - 127.
							1
Beryllium	109	98.0		mg/Kg		89.9	74.7 - 124.
							8
Cadmium	67.5	58.3		mg/Kg		86.3	73.2 - 126.
							8
Calcium	5850	5250		mg/Kg		89.7	73.7 - 126.
							5
Chromium	164	150	B	mg/Kg		91.6	70.7 - 129.
							9
Cobalt	100	92.4		mg/Kg		92.4	74.4 - 126.
							0
Copper	128	110		mg/Kg		86.3	75.2 - 125.
							8
Iron	15200	11700		mg/Kg		77.2	37.4 - 162.
							5
Lead	90.1	82.2		mg/Kg		91.3	70.1 - 129.
							9
Magnesium	2790	2390		mg/Kg		85.6	65.2 - 135.
							1
Manganese	363	314		mg/Kg		86.4	75.8 - 124.
							5
Nickel	89.3	82.3		mg/Kg		92.1	72.0 - 127.
							7
Potassium	2770	2290		mg/Kg		82.8	61.7 - 138.
							3

QC Sample Results

Client: Weston Solutions, Inc.

Project/Site: EPA RST2 - RFP No. 337

TestAmerica Job ID: 160-13352-1

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: LCSSRM 160-206471/2-A

Matrix: Solid

Analysis Batch: 207910

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 206471

%Rec.

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	Limits
Selenium	156	132	B	mg/Kg		84.8	67.3 - 132.
Silver	52.6	49.3		mg/Kg		93.7	66.7 - 133.
Sodium	686	588	B	mg/Kg		85.7	55.8 - 144.
Thallium	116	107		mg/Kg		91.8	67.4 - 131.
Vanadium	73.0	60.7		mg/Kg		83.2	59.7 - 139.
Zinc	168	148		mg/Kg		88.1	69.0 - 131.
						5	

Lab Sample ID: LCSSRM 160-206471/2-A

Matrix: Solid

Analysis Batch: 208000

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 206471

%Rec.

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	Limits
Chromium	164	153		mg/Kg		93.2	70.7 - 129.
						9	

Lab Sample ID: 160-13352-17 MS

Matrix: Solid

Analysis Batch: 207910

Client Sample ID: N003-SS003-1224-01

Prep Type: Total/NA

Prep Batch: 206471

%Rec.

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Aluminum	13000		997	19800	4	mg/Kg	⊗	734	75 - 125
Antimony	ND	F1	49.9	18.3	F1	mg/Kg	⊗	37	75 - 125
Arsenic	3.3	J B	99.7	95.5	B	mg/Kg	⊗	92	75 - 125
Barium	150	F1 B	99.7	203	F1 B	mg/Kg	⊗	57	75 - 125
Beryllium	ND		99.7	100		mg/Kg	⊗	100	75 - 125
Cadmium	0.57	J	99.7	95.5		mg/Kg	⊗	95	75 - 125
Calcium	44000	F2	997	32200	4	mg/Kg	⊗	-1228	75 - 125
Chromium	860	F2 B	99.7	492	4 B	mg/Kg	⊗	-370	75 - 125
Cobalt	11	J	99.7	113		mg/Kg	⊗	102	75 - 125
Copper	20	J	99.7	115		mg/Kg	⊗	96	75 - 125
Iron	19000		997	21700	4	mg/Kg	⊗	283	75 - 125
Lead	64		99.7	148		mg/Kg	⊗	85	75 - 125
Magnesium	17000	F2	997	15100	4	mg/Kg	⊗	-206	75 - 125
Manganese	1300		99.7	835	4	mg/Kg	⊗	-495	75 - 125
Nickel	25	J	99.7	122		mg/Kg	⊗	97	75 - 125
Potassium	1100	J F1	997	3620	J F1	mg/Kg	⊗	256	75 - 125
Selenium	ND		49.9	44.3	B	mg/Kg	⊗	89	75 - 125
Silver	ND		19.9	20.0		mg/Kg	⊗	100	75 - 125
Sodium	770	J F1 B	997	1340	F1 B	mg/Kg	⊗	57	75 - 125
Thallium	ND		20.0	22.3		mg/Kg	⊗	112	75 - 125
Vanadium	29	J	99.7	124		mg/Kg	⊗	95	75 - 125
Zinc	270	F1	99.7	289	F1	mg/Kg	⊗	16	75 - 125

QC Sample Results

Client: Weston Solutions, Inc.
Project/Site: EPA RST2 - RFP No. 337

TestAmerica Job ID: 160-13352-1

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: 160-13352-17 MSD				Client Sample ID: N003-SS003-1224-01									
Matrix: Solid				Prep Type: Total/NA									
Analysis Batch: 207910				Prep Batch: 206471									
Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	RPD	Limit	
Aluminum	13000		1010	19100	4	mg/Kg	⊗	646	75 - 125	4	30		
Antimony	ND	F1	50.7	15.6	F1	mg/Kg	⊗	31	75 - 125	16	30		
Arsenic	3.3	J B	101	102	B	mg/Kg	⊗	98	75 - 125	7	30		
Barium	150	F1 B	101	202	F1 B	mg/Kg	⊗	55	75 - 125	1	30		
Beryllium	ND		101	104		mg/Kg	⊗	103	75 - 125	4	30		
Cadmium	0.57	J	101	99.4		mg/Kg	⊗	98	75 - 125	4	30		
Calcium	44000	F2	1010	49100	4 F2	mg/Kg	⊗	456	75 - 125	42	30		
Chromium	860	F2 B	101	823	4 F2 B	mg/Kg	⊗	-37	75 - 125	50	30		
Cobalt	11	J	101	119		mg/Kg	⊗	107	75 - 125	5	30		
Copper	20	J	101	132		mg/Kg	⊗	111	75 - 125	14	30		
Iron	19000		1010	21800	4	mg/Kg	⊗	290	75 - 125	1	30		
Lead	64		101	159		mg/Kg	⊗	94	75 - 125	7	30		
Magnesium	17000	F2	1010	20800	4 F2	mg/Kg	⊗	357	75 - 125	32	30		
Manganese	1300		101	726	4	mg/Kg	⊗	-595	75 - 125	14	30		
Nickel	25	J	101	133		mg/Kg	⊗	107	75 - 125	9	30		
Potassium	1100	J F1	1010	3980	J F1	mg/Kg	⊗	287	75 - 125	9	30		
Selenium	ND		50.7	46.8	B	mg/Kg	⊗	92	75 - 125	6	30		
Silver	ND		20.3	21.0		mg/Kg	⊗	104	75 - 125	5	30		
Sodium	770	J F1 B	1010	1560	B	mg/Kg	⊗	78	75 - 125	16	30		
Thallium	ND		20.3	23.7		mg/Kg	⊗	117	75 - 125	6	30		
Vanadium	29	J	101	135		mg/Kg	⊗	104	75 - 125	8	30		
Zinc	270	F1	101	309	F1	mg/Kg	⊗	35	75 - 125	7	30		

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 160-206284/1-A				Client Sample ID: Method Blank									
Matrix: Water				Prep Type: Total/NA									
Analysis Batch: 206952				Prep Batch: 206284									
Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac				
Mercury	ND		0.20	0.060	ug/L		08/18/15 14:10	08/21/15 08:45					1

Lab Sample ID: LCS 160-206284/2-A				Client Sample ID: Lab Control Sample									
Matrix: Water				Prep Type: Total/NA									
Analysis Batch: 206952				Prep Batch: 206284									
Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits						
Mercury	5.00	4.68		ug/L		94	80 - 120						

Lab Sample ID: MB 160-206978/1-A				Client Sample ID: Method Blank									
Matrix: Water				Prep Type: Total/NA									
Analysis Batch: 207322				Prep Batch: 206978									
Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac				
Mercury	ND		0.20	0.060	ug/L		08/21/15 13:49	08/21/15 19:18					1

QC Sample Results

Client: Weston Solutions, Inc.
Project/Site: EPA RST2 - RFP No. 337

TestAmerica Job ID: 160-13352-1

Method: 7470A - Mercury (CVAA) (Continued)

Lab Sample ID: LCS 160-206978/2-A Matrix: Water Analysis Batch: 207322				Client Sample ID: Lab Control Sample Prep Type: Total/NA Prep Batch: 206978 %Rec. Limits					
Analyte		Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec		
Mercury		5.00	4.65		ug/L		93	80 - 120	

Method: 7471B - Mercury (CVAA)

Lab Sample ID: MB 160-207385/1-A Matrix: Solid Analysis Batch: 207680				Client Sample ID: Method Blank Prep Type: Total/NA Prep Batch: 207385					
Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.031	0.010	mg/Kg		08/24/15 14:02	08/24/15 23:07	1

Lab Sample ID: LCSSRM 160-207385/2-A Matrix: Solid Analysis Batch: 207680				Client Sample ID: Lab Control Sample Prep Type: Total/NA Prep Batch: 207385 %Rec.					
Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	Limits		
Mercury	8.37	6.48		mg/Kg		77.5	51.3 - 148.	1	

Lab Sample ID: 160-13352-17 MS Matrix: Solid Analysis Batch: 207680				Client Sample ID: N003-SS003-1224-01 Prep Type: Total/NA Prep Batch: 207385 %Rec.					
Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Mercury	0.19		0.839	0.931		mg/Kg	✉	89	80 - 120

Lab Sample ID: 160-13352-17 MSD Matrix: Solid Analysis Batch: 207680				Client Sample ID: N003-SS003-1224-01 Prep Type: Total/NA Prep Batch: 207385 %Rec.					
Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	RPD
Mercury	0.19		0.872	0.948		mg/Kg	✉	87	80 - 120

Method: A-01-R - Isotopic Thorium (Alpha Spectrometry)

Lab Sample ID: MB 160-206002/1-A Matrix: Solid Analysis Batch: 206779				Client Sample ID: Method Blank Prep Type: Total/NA Prep Batch: 206002						
Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Thorium-228	0.06147		0.0469	0.0472	1.00	0.0465	pCi/g	08/17/15 09:13	08/20/15 14:17	1
Thorium-230	0.1067		0.0592	0.0599	1.00	0.0247	pCi/g	08/17/15 09:13	08/20/15 14:17	1
Thorium-232	0.01432	U	0.0235	0.0235	1.00	0.0396	pCi/g	08/17/15 09:13	08/20/15 14:17	1
Tracer	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Thorium-229	92.0		30 - 110					08/17/15 09:13	08/20/15 14:17	1

QC Sample Results

Client: Weston Solutions, Inc.
Project/Site: EPA RST2 - RFP No. 337

TestAmerica Job ID: 160-13352-1

Method: A-01-R - Isotopic Thorium (Alpha Spectrometry) (Continued)

Lab Sample ID: LCS 160-206002/2-A

Matrix: Solid

Analysis Batch: 206780

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 206002

Analyte	Spike Added	LCS		Uncert. (2σ+/-)	Total		%Rec.	Limits
		Result	Qual		RL	MDC		
Thorium-230	24.5	25.40		2.50	1.00	0.0813	pCi/g	104 81 - 118
<i>Tracer</i>								
Thorium-229	90.7			30 - 110				

Lab Sample ID: 160-13352-17 MS

Matrix: Solid

Analysis Batch: 206853

Client Sample ID: N003-SS003-1224-01

Prep Type: Total/NA

Prep Batch: 206002

Analyte	Sample		Spike Added	MS		Uncert. (2σ+/-)	Total		%Rec.	Limits
	Result	Qual		Result	Qual		RL	MDC		
Thorium-230	1.65		3.99	6.419	F1	0.721	1.00	0.0550	pCi/g	120 76 - 115
<i>Tracer</i>										
Thorium-229	82.0			30 - 110						

Lab Sample ID: 160-13352-17 MSD

Matrix: Solid

Analysis Batch: 206854

Client Sample ID: N003-SS003-1224-01

Prep Type: Total/NA

Prep Batch: 206002

Analyte	Sample		Spike Added	MSD		Uncert. (2σ+/-)	Total		%Rec.	RER	RER Limit
	Result	Qual		Result	Qual		RL	MDC			
Thorium-230	1.65		4.00	5.864		0.664	1.00	0.0631	pCi/g	105 76 - 115	0.40 1
<i>Tracer</i>											
Thorium-229	83.5			30 - 110							

Lab Sample ID: MB 160-206043/1-A

Matrix: Water

Analysis Batch: 206785

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 206043

Analyte	MB		Count Uncert. (2σ+/-)	Total		Prepared	Analyzed	Dil Fac
	Result	Qualifier		Uncert. (2σ+/-)	RL	MDC	Unit	
Thorium-228	0.008984	U	0.0364	0.0365	1.00	0.0955	pCi/L	08/17/15 11:51 08/20/15 14:07 1
Thorium-230	0.1427		0.105	0.105	1.00	0.107	pCi/L	08/17/15 11:51 08/20/15 14:07 1
Thorium-232	0.008573	U	0.0364	0.0364	1.00	0.0960	pCi/L	08/17/15 11:51 08/20/15 14:07 1
<i>Tracer</i>								
Thorium-229	89.8		30 - 110					
						Prepared	Analyzed	Dil Fac
						08/17/15 11:51	08/20/15 14:07	1

QC Sample Results

Client: Weston Solutions, Inc.
Project/Site: EPA RST2 - RFP No. 337

TestAmerica Job ID: 160-13352-1

Method: A-01-R - Isotopic Thorium (Alpha Spectrometry) (Continued)

Lab Sample ID: LCS 160-206043/2-A					Client Sample ID: Lab Control Sample				
Matrix: Water					Prep Type: Total/NA				
Analysis Batch: 206786					Prep Batch: 206043				
Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Thorium-230	8.03	8.266		1.03	1.00	0.0851	pCi/L	103	81 - 125
Tracer	LCS %Yield	LCS Qualifier	Limits						
Thorium-229	84.0		30 - 110						

Lab Sample ID: LCSD 160-206043/3-A					Client Sample ID: Lab Control Sample Dup				
Matrix: Water					Prep Type: Total/NA				
Analysis Batch: 206787					Prep Batch: 206043				
Analyte	Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Thorium-230	8.03	8.508		1.03	1.00	0.0902	pCi/L	106	81 - 125
Tracer	LCSD %Yield	LCSD Qualifier	Limits						RER
Thorium-229	91.8		30 - 110						0.12

Method: A-01-R - Isotopic Uranium (Alpha Spectrometry)

Lab Sample ID: MB 160-206044/1-A					Client Sample ID: Method Blank				
Matrix: Water					Prep Type: Total/NA				
Analysis Batch: 206783					Prep Batch: 206044				
Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed
Uranium-233/234	-0.004355	U	0.00871	0.00872	1.00	0.0843	pCi/L	08/17/15 11:51	08/20/15 14:10
Tracer	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed
Uranium-232	86.3		30 - 110					08/17/15 11:51	08/20/15 14:10

Lab Sample ID: LCS 160-206044/2-A					Client Sample ID: Lab Control Sample				
Matrix: Water					Prep Type: Total/NA				
Analysis Batch: 206781					Prep Batch: 206044				
Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Uranium-233/234	12.7	12.10		1.41	1.00	0.122	pCi/L	95	84 - 120
Tracer	LCS %Yield	LCS Qualifier	Limits						
Uranium-232	73.1		30 - 110						

QC Sample Results

Client: Weston Solutions, Inc.
Project/Site: EPA RST2 - RFP No. 337

TestAmerica Job ID: 160-13352-1

Method: A-01-R - Isotopic Uranium (Alpha Spectrometry) (Continued)

Lab Sample ID: LCSD 160-206044/3-A					Client Sample ID: Lab Control Sample Dup							
Matrix: Water					Prep Type: Total/NA							
Analysis Batch: 206784					Prep Batch: 206044							
Analyte	Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec.	Limits	RER	RER	Limit
Uranium-233/234	12.7	13.47		1.54	1.00	0.112	pCi/L	106	84 - 120	0.46		1
Uranium-238	13.0	13.03		1.50	1.00	0.0600	pCi/L	100	83 - 121	0.09		1
<i>Tracer</i>	<i>LCSD</i> <i>%Yield</i>	<i>LCSD</i> <i>Qualifier</i>	<i>Limits</i>									
Uranium-232	75.1		30 - 110									

Lab Sample ID: MB 160-206252/1-A					Client Sample ID: Method Blank							
Matrix: Solid					Prep Type: Total/NA							
Analysis Batch: 206783					Prep Batch: 206252							
Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil	Fac	
Uranium-233/234	0.03211	U	0.0345	0.0346	1.00	0.0414	pCi/g	08/17/15 09:13	08/20/15 20:50			1
Uranium-235/236	0.0000	U	0.00533	0.00533	1.00	0.0320	pCi/g	08/17/15 09:13	08/20/15 20:50			1
Uranium-238	0.02564		0.0296	0.0297	1.00	0.0256	pCi/g	08/17/15 09:13	08/20/15 20:50			1
<i>Tracer</i>	<i>MB</i> <i>%Yield</i>	<i>MB</i> <i>Qualifier</i>	<i>Limits</i>					<i>Prepared</i>	<i>Analyzed</i>	<i>Dil</i>	<i>Fac</i>	
Uranium-232	87.8		30 - 110					08/17/15 09:13	08/20/15 20:50			1

Lab Sample ID: LCS 160-206252/2-A					Client Sample ID: Lab Control Sample							
Matrix: Solid					Prep Type: Total/NA							
Analysis Batch: 206784					Prep Batch: 206252							
Analyte	Spike Added	LCs Result	LCs Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	Limits			
Uranium-233/234	6.37	6.350		0.717	1.00	0.0506	pCi/g	100	84 - 120			
Uranium-238	6.51	6.487		0.729	1.00	0.0271	pCi/g	100	82 - 122			
<i>Tracer</i>	<i>LCs</i> <i>%Yield</i>	<i>LCs</i> <i>Qualifier</i>	<i>Limits</i>									
Uranium-232	83.2		30 - 110									

Lab Sample ID: 160-13352-17 MS					Client Sample ID: N003-SS003-1224-01							
Matrix: Solid					Prep Type: Total/NA							
Analysis Batch: 206853					Prep Batch: 206252							
Analyte	Sample Result	Sample Qual	Spike Added	MS Result	MS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	Limits	
Uranium-233/234	1.73		6.33	7.302		0.799	1.00	0.0598	pCi/g	88	70 - 130	
Uranium-238	1.62		6.47	7.108		0.782	1.00	0.0597	pCi/g	85	70 - 130	
<i>Tracer</i>	<i>MS</i> <i>%Yield</i>	<i>MS</i> <i>Qualifier</i>	<i>Limits</i>									
Uranium-232	81.2		30 - 110									

QC Sample Results

Client: Weston Solutions, Inc.
Project/Site: EPA RST2 - RFP No. 337

TestAmerica Job ID: 160-13352-1

Method: A-01-R - Isotopic Uranium (Alpha Spectrometry) (Continued)

Lab Sample ID: 160-13352-17 MSD								Client Sample ID: N003-SS003-1224-01							
Matrix: Solid								Prep Type: Total/NA							
Analysis Batch: 206854								Prep Batch: 206252							
Analyte	Sample Result	Sample Qual	Spike Added	MSD Result	MSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit pCi/g	%Rec	%Rec. Limits	RER	RER Limit		
Uranium-233/234	1.73		6.35	8.553		0.924	1.00	0.0773	pCi/g	107	70 - 130	0.73		1	
Uranium-238	1.62		6.49	8.875		0.951	1.00	0.0475	pCi/g	112	70 - 130	1.02		1	
Tracer	MSD %Yield	MSD Qualifier	Limits												
Uranium-232	71.3		30 - 110												

Method: GA-01-R - Cesium-137 & Other Gamma Emitters (GS)

Lab Sample ID: MB 160-206509/1-A								Client Sample ID: Method Blank							
Matrix: Water								Prep Type: Total/NA							
Analysis Batch: 206440								Prep Batch: 206509							
Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	RL	MDC	Unit pCi/L	Prepared 08/19/15 13:48	Analyzed 08/19/15 18:05	Dil Fac			
Cesium-137	1.614	U	8.11	8.11		8.11	20.0	14.9	pCi/L	08/19/15 13:48	08/19/15 18:05	1			
Other Detected Radionuclides	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	RL	MDC	Unit pCi/L	Prepared 08/19/15 13:48	Analyzed 08/19/15 18:05	Dil Fac			
Other Detected Radionuclide	None								pCi/L	08/19/15 13:48	08/19/15 18:05	1			

Lab Sample ID: LCS 160-206509/2-A

Lab Sample ID: LCS 160-206509/2-A								Client Sample ID: Lab Control Sample							
Matrix: Water								Prep Type: Total/NA							
Analysis Batch: 206442								Prep Batch: 206509							
Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits						
Americium-241	137000	134300		15500		435	pCi/L	98	90 - 111						
Cesium-137	48700	47620		4770	20.0	151	pCi/L	98	90 - 111						
Cobalt-60	48400	46270		4580		119	pCi/L	96	89 - 110						

QC Association Summary

Client: Weston Solutions, Inc.

Project/Site: EPA RST2 - RFP No. 337

TestAmerica Job ID: 160-13352-1

Metals

Prep Batch: 206067

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-13352-19	RB-N-150811	Total/NA	Water	3010A	
160-13352-19 MS	RB-N-150811	Total/NA	Water	3010A	
160-13352-19 MSD	RB-N-150811	Total/NA	Water	3010A	
160-13352-20	RB-N-150812	Total/NA	Water	3010A	
LCS 160-206067/2-A	Lab Control Sample	Total/NA	Water	3010A	
MB 160-206067/1-A	Method Blank	Total/NA	Water	3010A	

Prep Batch: 206284

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-13352-19	RB-N-150811	Total/NA	Water	7470A	
LCS 160-206284/2-A	Lab Control Sample	Total/NA	Water	7470A	
MB 160-206284/1-A	Method Blank	Total/NA	Water	7470A	

Prep Batch: 206471

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-13352-1	N001-SS001-1224-01	Total/NA	Solid	3050B	
160-13352-2	N001-SS002-1224-01	Total/NA	Solid	3050B	
160-13352-3	N001-SS003-0012-01	Total/NA	Solid	3050B	
160-13352-4	N001-SS004-0012-01	Total/NA	Solid	3050B	
160-13352-5	N001-SS005-1830-01	Total/NA	Solid	3050B	
160-13352-6	N001-SS006-0012-01	Total/NA	Solid	3050B	
160-13352-7	N001-SS007-0012-01	Total/NA	Solid	3050B	
160-13352-8	N002-SS001-0012-01	Total/NA	Solid	3050B	
160-13352-9	N002-SS002-0012-01	Total/NA	Solid	3050B	
160-13352-10	N002-SS003-0012-01	Total/NA	Solid	3050B	
160-13352-11	N002-SS004-0012-01	Total/NA	Solid	3050B	
160-13352-12	N002-SS005-0012-01	Total/NA	Solid	3050B	
160-13352-13	N002-SS006-2436-01	Total/NA	Solid	3050B	
160-13352-14	N002-TRENCH-0003-01	Total/NA	Solid	3050B	
160-13352-15	N003-SS001-1022-01	Total/NA	Solid	3050B	
160-13352-16	N003-SS002-2436-01	Total/NA	Solid	3050B	
160-13352-17	N003-SS003-1224-01	Total/NA	Solid	3050B	
160-13352-17 MS	N003-SS003-1224-01	Total/NA	Solid	3050B	
160-13352-17 MSD	N003-SS003-1224-01	Total/NA	Solid	3050B	
160-13352-18	N003-SS003-1224-02	Total/NA	Solid	3050B	
LCSSRM 160-206471/2-A	Lab Control Sample	Total/NA	Solid	3050B	
MB 160-206471/1-A	Method Blank	Total/NA	Solid	3050B	

Analysis Batch: 206636

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-13352-19	RB-N-150811	Total/NA	Water	6010C	206067
160-13352-19 MS	RB-N-150811	Total/NA	Water	6010C	206067
160-13352-19 MSD	RB-N-150811	Total/NA	Water	6010C	206067
160-13352-20	RB-N-150812	Total/NA	Water	6010C	206067
LCS 160-206067/2-A	Lab Control Sample	Total/NA	Water	6010C	206067
MB 160-206067/1-A	Method Blank	Total/NA	Water	6010C	206067

Analysis Batch: 206952

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-13352-19	RB-N-150811	Total/NA	Water	7470A	206284
LCS 160-206284/2-A	Lab Control Sample	Total/NA	Water	7470A	206284

TestAmerica St. Louis

QC Association Summary

Client: Weston Solutions, Inc.

Project/Site: EPA RST2 - RFP No. 337

TestAmerica Job ID: 160-13352-1

Metals (Continued)

Analysis Batch: 206952 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 160-206284/1-A	Method Blank	Total/NA	Water	7470A	206284

Prep Batch: 206978

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-13352-20	RB-N-150812	Total/NA	Water	7470A	
LCS 160-206978/2-A	Lab Control Sample	Total/NA	Water	7470A	
MB 160-206978/1-A	Method Blank	Total/NA	Water	7470A	

Analysis Batch: 207295

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-13352-19	RB-N-150811	Total/NA	Water	6010C	206067
160-13352-19 MS	RB-N-150811	Total/NA	Water	6010C	206067
160-13352-19 MSD	RB-N-150811	Total/NA	Water	6010C	206067
160-13352-20	RB-N-150812	Total/NA	Water	6010C	206067
LCS 160-206067/2-A	Lab Control Sample	Total/NA	Water	6010C	206067
MB 160-206067/1-A	Method Blank	Total/NA	Water	6010C	206067

Analysis Batch: 207322

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-13352-20	RB-N-150812	Total/NA	Water	7470A	206978
LCS 160-206978/2-A	Lab Control Sample	Total/NA	Water	7470A	206978
MB 160-206978/1-A	Method Blank	Total/NA	Water	7470A	206978

Prep Batch: 207385

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-13352-1	N001-SS001-1224-01	Total/NA	Solid	7471B	
160-13352-2	N001-SS002-1224-01	Total/NA	Solid	7471B	
160-13352-3	N001-SS003-0012-01	Total/NA	Solid	7471B	
160-13352-4	N001-SS004-0012-01	Total/NA	Solid	7471B	
160-13352-5	N001-SS005-1830-01	Total/NA	Solid	7471B	
160-13352-6	N001-SS006-0012-01	Total/NA	Solid	7471B	
160-13352-7	N001-SS007-0012-01	Total/NA	Solid	7471B	
160-13352-8	N002-SS001-0012-01	Total/NA	Solid	7471B	
160-13352-9	N002-SS002-0012-01	Total/NA	Solid	7471B	
160-13352-10	N002-SS003-0012-01	Total/NA	Solid	7471B	
160-13352-11	N002-SS004-0012-01	Total/NA	Solid	7471B	
160-13352-12	N002-SS005-0012-01	Total/NA	Solid	7471B	
160-13352-13	N002-SS006-2436-01	Total/NA	Solid	7471B	
160-13352-14	N002-TRENCH-0003-01	Total/NA	Solid	7471B	
160-13352-15	N003-SS001-1022-01	Total/NA	Solid	7471B	
160-13352-16	N003-SS002-2436-01	Total/NA	Solid	7471B	
160-13352-17	N003-SS003-1224-01	Total/NA	Solid	7471B	
160-13352-17 MS	N003-SS003-1224-01	Total/NA	Solid	7471B	
160-13352-17 MSD	N003-SS003-1224-01	Total/NA	Solid	7471B	
160-13352-18	N003-SS003-1224-02	Total/NA	Solid	7471B	
LCSSRM 160-207385/2-A	Lab Control Sample	Total/NA	Solid	7471B	
MB 160-207385/1-A	Method Blank	Total/NA	Solid	7471B	

Analysis Batch: 207680

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-13352-1	N001-SS001-1224-01	Total/NA	Solid	7471B	207385

TestAmerica St. Louis

QC Association Summary

Client: Weston Solutions, Inc.

Project/Site: EPA RST2 - RFP No. 337

TestAmerica Job ID: 160-13352-1

Metals (Continued)

Analysis Batch: 207680 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-13352-2	N001-SS002-1224-01	Total/NA	Solid	7471B	207385
160-13352-3	N001-SS003-0012-01	Total/NA	Solid	7471B	207385
160-13352-4	N001-SS004-0012-01	Total/NA	Solid	7471B	207385
160-13352-5	N001-SS005-1830-01	Total/NA	Solid	7471B	207385
160-13352-6	N001-SS006-0012-01	Total/NA	Solid	7471B	207385
160-13352-7	N001-SS007-0012-01	Total/NA	Solid	7471B	207385
160-13352-8	N002-SS001-0012-01	Total/NA	Solid	7471B	207385
160-13352-9	N002-SS002-0012-01	Total/NA	Solid	7471B	207385
160-13352-10	N002-SS003-0012-01	Total/NA	Solid	7471B	207385
160-13352-11	N002-SS004-0012-01	Total/NA	Solid	7471B	207385
160-13352-12	N002-SS005-0012-01	Total/NA	Solid	7471B	207385
160-13352-13	N002-SS006-2436-01	Total/NA	Solid	7471B	207385
160-13352-14	N002-TRENCH-0003-01	Total/NA	Solid	7471B	207385
160-13352-15	N003-SS001-1022-01	Total/NA	Solid	7471B	207385
160-13352-16	N003-SS002-2436-01	Total/NA	Solid	7471B	207385
160-13352-17	N003-SS003-1224-01	Total/NA	Solid	7471B	207385
160-13352-17 MS	N003-SS003-1224-01	Total/NA	Solid	7471B	207385
160-13352-17 MSD	N003-SS003-1224-01	Total/NA	Solid	7471B	207385
160-13352-18	N003-SS003-1224-02	Total/NA	Solid	7471B	207385
LCSSRM 160-207385/2-A	Lab Control Sample	Total/NA	Solid	7471B	207385
MB 160-207385/1-A	Method Blank	Total/NA	Solid	7471B	207385

Analysis Batch: 207910

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-13352-1	N001-SS001-1224-01	Total/NA	Solid	6010C	206471
160-13352-2	N001-SS002-1224-01	Total/NA	Solid	6010C	206471
160-13352-3	N001-SS003-0012-01	Total/NA	Solid	6010C	206471
160-13352-4	N001-SS004-0012-01	Total/NA	Solid	6010C	206471
160-13352-5	N001-SS005-1830-01	Total/NA	Solid	6010C	206471
160-13352-6	N001-SS006-0012-01	Total/NA	Solid	6010C	206471
160-13352-7	N001-SS007-0012-01	Total/NA	Solid	6010C	206471
160-13352-8	N002-SS001-0012-01	Total/NA	Solid	6010C	206471
160-13352-9	N002-SS002-0012-01	Total/NA	Solid	6010C	206471
160-13352-10	N002-SS003-0012-01	Total/NA	Solid	6010C	206471
160-13352-11	N002-SS004-0012-01	Total/NA	Solid	6010C	206471
160-13352-12	N002-SS005-0012-01	Total/NA	Solid	6010C	206471
160-13352-13	N002-SS006-2436-01	Total/NA	Solid	6010C	206471
160-13352-14	N002-TRENCH-0003-01	Total/NA	Solid	6010C	206471
160-13352-15	N003-SS001-1022-01	Total/NA	Solid	6010C	206471
160-13352-16	N003-SS002-2436-01	Total/NA	Solid	6010C	206471
160-13352-17	N003-SS003-1224-01	Total/NA	Solid	6010C	206471
160-13352-17 MS	N003-SS003-1224-01	Total/NA	Solid	6010C	206471
160-13352-17 MSD	N003-SS003-1224-01	Total/NA	Solid	6010C	206471
160-13352-18	N003-SS003-1224-02	Total/NA	Solid	6010C	206471
LCSSRM 160-206471/2-A	Lab Control Sample	Total/NA	Solid	6010C	206471
MB 160-206471/1-A	Method Blank	Total/NA	Solid	6010C	206471

Analysis Batch: 208000

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-13352-2	N001-SS002-1224-01	Total/NA	Solid	6010C	206471
160-13352-3	N001-SS003-0012-01	Total/NA	Solid	6010C	206471

TestAmerica St. Louis

QC Association Summary

Client: Weston Solutions, Inc.

Project/Site: EPA RST2 - RFP No. 337

TestAmerica Job ID: 160-13352-1

Metals (Continued)

Analysis Batch: 208000 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-13352-4	N001-SS004-0012-01	Total/NA	Solid	6010C	206471
160-13352-5	N001-SS005-1830-01	Total/NA	Solid	6010C	206471
160-13352-6	N001-SS006-0012-01	Total/NA	Solid	6010C	206471
160-13352-7	N001-SS007-0012-01	Total/NA	Solid	6010C	206471
160-13352-9	N002-SS002-0012-01	Total/NA	Solid	6010C	206471
160-13352-10	N002-SS003-0012-01	Total/NA	Solid	6010C	206471
160-13352-11	N002-SS004-0012-01	Total/NA	Solid	6010C	206471
160-13352-12	N002-SS005-0012-01	Total/NA	Solid	6010C	206471
160-13352-13	N002-SS006-2436-01	Total/NA	Solid	6010C	206471
160-13352-16	N003-SS002-2436-01	Total/NA	Solid	6010C	206471
LCSSRM 160-206471/2-A	Lab Control Sample	Total/NA	Solid	6010C	206471
MB 160-206471/1-A	Method Blank	Total/NA	Solid	6010C	206471

General Chemistry

Analysis Batch: 206646

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-13352-1	N001-SS001-1224-01	Total/NA	Solid	Moisture	
160-13352-1 DU	N001-SS001-1224-01	Total/NA	Solid	Moisture	
160-13352-2	N001-SS002-1224-01	Total/NA	Solid	Moisture	
160-13352-3	N001-SS003-0012-01	Total/NA	Solid	Moisture	
160-13352-4	N001-SS004-0012-01	Total/NA	Solid	Moisture	
160-13352-5	N001-SS005-1830-01	Total/NA	Solid	Moisture	
160-13352-6	N001-SS006-0012-01	Total/NA	Solid	Moisture	
160-13352-7	N001-SS007-0012-01	Total/NA	Solid	Moisture	
160-13352-8	N002-SS001-0012-01	Total/NA	Solid	Moisture	
160-13352-9	N002-SS002-0012-01	Total/NA	Solid	Moisture	
160-13352-10	N002-SS003-0012-01	Total/NA	Solid	Moisture	
160-13352-11	N002-SS004-0012-01	Total/NA	Solid	Moisture	
160-13352-12	N002-SS005-0012-01	Total/NA	Solid	Moisture	
160-13352-13	N002-SS006-2436-01	Total/NA	Solid	Moisture	
160-13352-14	N002-TRENCH-0003-01	Total/NA	Solid	Moisture	
160-13352-15	N003-SS001-1022-01	Total/NA	Solid	Moisture	
160-13352-16	N003-SS002-2436-01	Total/NA	Solid	Moisture	
160-13352-17	N003-SS003-1224-01	Total/NA	Solid	Moisture	
160-13352-18	N003-SS003-1224-02	Total/NA	Solid	Moisture	

Rad

Leach Batch: 205721

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-13352-1	N001-SS001-1224-01	Total/NA	Solid	Dry and Grind	
160-13352-2	N001-SS002-1224-01	Total/NA	Solid	Dry and Grind	
160-13352-3	N001-SS003-0012-01	Total/NA	Solid	Dry and Grind	
160-13352-4	N001-SS004-0012-01	Total/NA	Solid	Dry and Grind	
160-13352-5	N001-SS005-1830-01	Total/NA	Solid	Dry and Grind	
160-13352-6	N001-SS006-0012-01	Total/NA	Solid	Dry and Grind	
160-13352-7	N001-SS007-0012-01	Total/NA	Solid	Dry and Grind	
160-13352-8	N002-SS001-0012-01	Total/NA	Solid	Dry and Grind	
160-13352-9	N002-SS002-0012-01	Total/NA	Solid	Dry and Grind	

TestAmerica St. Louis

QC Association Summary

Client: Weston Solutions, Inc.

Project/Site: EPA RST2 - RFP No. 337

TestAmerica Job ID: 160-13352-1

Rad (Continued)

Leach Batch: 205721 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-13352-10	N002-SS003-0012-01	Total/NA	Solid	Dry and Grind	
160-13352-11	N002-SS004-0012-01	Total/NA	Solid	Dry and Grind	
160-13352-12	N002-SS005-0012-01	Total/NA	Solid	Dry and Grind	
160-13352-13	N002-SS006-2436-01	Total/NA	Solid	Dry and Grind	
160-13352-14	N002-TRENCH-0003-01	Total/NA	Solid	Dry and Grind	
160-13352-15	N003-SS001-1022-01	Total/NA	Solid	Dry and Grind	
160-13352-16	N003-SS002-2436-01	Total/NA	Solid	Dry and Grind	
160-13352-17	N003-SS003-1224-01	Total/NA	Solid	Dry and Grind	
160-13352-17 MS	N003-SS003-1224-01	Total/NA	Solid	Dry and Grind	
160-13352-17 MSD	N003-SS003-1224-01	Total/NA	Solid	Dry and Grind	
160-13352-18	N003-SS003-1224-02	Total/NA	Solid	Dry and Grind	

Prep Batch: 206002

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-13352-1	N001-SS001-1224-01	Total/NA	Solid	ExtChrom	205721
160-13352-2	N001-SS002-1224-01	Total/NA	Solid	ExtChrom	205721
160-13352-3	N001-SS003-0012-01	Total/NA	Solid	ExtChrom	205721
160-13352-4	N001-SS004-0012-01	Total/NA	Solid	ExtChrom	205721
160-13352-5	N001-SS005-1830-01	Total/NA	Solid	ExtChrom	205721
160-13352-6	N001-SS006-0012-01	Total/NA	Solid	ExtChrom	205721
160-13352-7	N001-SS007-0012-01	Total/NA	Solid	ExtChrom	205721
160-13352-8	N002-SS001-0012-01	Total/NA	Solid	ExtChrom	205721
160-13352-9	N002-SS002-0012-01	Total/NA	Solid	ExtChrom	205721
160-13352-10	N002-SS003-0012-01	Total/NA	Solid	ExtChrom	205721
160-13352-11	N002-SS004-0012-01	Total/NA	Solid	ExtChrom	205721
160-13352-12	N002-SS005-0012-01	Total/NA	Solid	ExtChrom	205721
160-13352-13	N002-SS006-2436-01	Total/NA	Solid	ExtChrom	205721
160-13352-14	N002-TRENCH-0003-01	Total/NA	Solid	ExtChrom	205721
160-13352-15	N003-SS001-1022-01	Total/NA	Solid	ExtChrom	205721
160-13352-16	N003-SS002-2436-01	Total/NA	Solid	ExtChrom	205721
160-13352-17	N003-SS003-1224-01	Total/NA	Solid	ExtChrom	205721
160-13352-17 MS	N003-SS003-1224-01	Total/NA	Solid	ExtChrom	205721
160-13352-17 MSD	N003-SS003-1224-01	Total/NA	Solid	ExtChrom	205721
160-13352-18	N003-SS003-1224-02	Total/NA	Solid	ExtChrom	205721
LCS 160-206002/2-A	Lab Control Sample	Total/NA	Solid	ExtChrom	
MB 160-206002/1-A	Method Blank	Total/NA	Solid	ExtChrom	

Prep Batch: 206043

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-13352-19	RB-N-150811	Total/NA	Water	ExtChrom	
160-13352-20	RB-N-150812	Total/NA	Water	ExtChrom	
LCS 160-206043/2-A	Lab Control Sample	Total/NA	Water	ExtChrom	
LCSD 160-206043/3-A	Lab Control Sample Dup	Total/NA	Water	ExtChrom	
MB 160-206043/1-A	Method Blank	Total/NA	Water	ExtChrom	

Prep Batch: 206044

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-13352-19	RB-N-150811	Total/NA	Water	ExtChrom	
160-13352-20	RB-N-150812	Total/NA	Water	ExtChrom	
LCS 160-206044/2-A	Lab Control Sample	Total/NA	Water	ExtChrom	
LCSD 160-206044/3-A	Lab Control Sample Dup	Total/NA	Water	ExtChrom	

TestAmerica St. Louis

QC Association Summary

Client: Weston Solutions, Inc.

Project/Site: EPA RST2 - RFP No. 337

TestAmerica Job ID: 160-13352-1

Rad (Continued)

Prep Batch: 206044 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 160-206044/1-A	Method Blank	Total/NA	Water	ExtChrom	

Prep Batch: 206252

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-13352-1	N001-SS001-1224-01	Total/NA	Solid	ExtChrom	205721
160-13352-2	N001-SS002-1224-01	Total/NA	Solid	ExtChrom	205721
160-13352-3	N001-SS003-0012-01	Total/NA	Solid	ExtChrom	205721
160-13352-4	N001-SS004-0012-01	Total/NA	Solid	ExtChrom	205721
160-13352-5	N001-SS005-1830-01	Total/NA	Solid	ExtChrom	205721
160-13352-6	N001-SS006-0012-01	Total/NA	Solid	ExtChrom	205721
160-13352-7	N001-SS007-0012-01	Total/NA	Solid	ExtChrom	205721
160-13352-8	N002-SS001-0012-01	Total/NA	Solid	ExtChrom	205721
160-13352-9	N002-SS002-0012-01	Total/NA	Solid	ExtChrom	205721
160-13352-10	N002-SS003-0012-01	Total/NA	Solid	ExtChrom	205721
160-13352-11	N002-SS004-0012-01	Total/NA	Solid	ExtChrom	205721
160-13352-12	N002-SS005-0012-01	Total/NA	Solid	ExtChrom	205721
160-13352-13	N002-SS006-2436-01	Total/NA	Solid	ExtChrom	205721
160-13352-14	N002-TRENCH-0003-01	Total/NA	Solid	ExtChrom	205721
160-13352-15	N003-SS001-1022-01	Total/NA	Solid	ExtChrom	205721
160-13352-16	N003-SS002-2436-01	Total/NA	Solid	ExtChrom	205721
160-13352-17	N003-SS003-1224-01	Total/NA	Solid	ExtChrom	205721
160-13352-17 MS	N003-SS003-1224-01	Total/NA	Solid	ExtChrom	205721
160-13352-17 MSD	N003-SS003-1224-01	Total/NA	Solid	ExtChrom	205721
160-13352-18	N003-SS003-1224-02	Total/NA	Solid	ExtChrom	205721
LCS 160-206252/2-A	Lab Control Sample	Total/NA	Solid	ExtChrom	
MB 160-206252/1-A	Method Blank	Total/NA	Solid	ExtChrom	

Prep Batch: 206509

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-13352-19	RB-N-150811	Total/NA	Water	Fill_Geo-0	
160-13352-20	RB-N-150812	Total/NA	Water	Fill_Geo-0	
LCS 160-206509/2-A	Lab Control Sample	Total/NA	Water	Fill_Geo-0	
MB 160-206509/1-A	Method Blank	Total/NA	Water	Fill_Geo-0	

Tracer/Carrier Summary

Client: Weston Solutions, Inc.
Project/Site: EPA RST2 - RFP No. 337

TestAmerica Job ID: 160-13352-1

Method: A-01-R - Isotopic Thorium (Alpha Spectrometry)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Yield (Acceptance Limits)	
		Th-229 (30-110)	
160-13352-1	N001-SS001-1224-01	95.2	
160-13352-2	N001-SS002-1224-01	84.5	
160-13352-3	N001-SS003-0012-01	90.9	
160-13352-4	N001-SS004-0012-01	87.6	
160-13352-5	N001-SS005-1830-01	88.6	
160-13352-6	N001-SS006-0012-01	85.0	
160-13352-7	N001-SS007-0012-01	81.9	
160-13352-8	N002-SS001-0012-01	84.4	
160-13352-9	N002-SS002-0012-01	81.3	
160-13352-10	N002-SS003-0012-01	86.0	
160-13352-11	N002-SS004-0012-01	105	
160-13352-12	N002-SS005-0012-01	90.3	
160-13352-13	N002-SS006-2436-01	61.6	
160-13352-14	N002-TRENCH-0003-01	61.0	
160-13352-15	N003-SS001-1022-01	84.9	
160-13352-16	N003-SS002-2436-01	87.1	
160-13352-17	N003-SS003-1224-01	90.7	
160-13352-17 MS	N003-SS003-1224-01	82.0	
160-13352-17 MSD	N003-SS003-1224-01	83.5	
160-13352-18	N003-SS003-1224-02	86.6	
LCS 160-206002/2-A	Lab Control Sample	90.7	
MB 160-206002/1-A	Method Blank	92.0	

Tracer/Carrier Legend

Th-229 = Thorium-229

Method: A-01-R - Isotopic Thorium (Alpha Spectrometry)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Yield (Acceptance Limits)	
		Th-229 (30-110)	
160-13352-19	RB-N-150811	78.7	
160-13352-20	RB-N-150812	93.9	
LCS 160-206043/2-A	Lab Control Sample	84.0	
LCSD 160-206043/3-A	Lab Control Sample Dup	91.8	
MB 160-206043/1-A	Method Blank	89.8	

Tracer/Carrier Legend

Th-229 = Thorium-229

Method: A-01-R - Isotopic Uranium (Alpha Spectrometry)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Yield (Acceptance Limits)	
		U-232 (30-110)	
160-13352-1	N001-SS001-1224-01	74.6	
160-13352-2	N001-SS002-1224-01	75.6	
160-13352-3	N001-SS003-0012-01	83.2	

TestAmerica St. Louis

Tracer/Carrier Summary

Client: Weston Solutions, Inc.

Project/Site: EPA RST2 - RFP No. 337

TestAmerica Job ID: 160-13352-1

Method: A-01-R - Isotopic Uranium (Alpha Spectrometry) (Continued)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Yield (Acceptance Limits)	
		U-232 (30-110)	
160-13352-4	N001-SS004-0012-01	80.2	
160-13352-5	N001-SS005-1830-01	84.0	
160-13352-6	N001-SS006-0012-01	83.6	
160-13352-7	N001-SS007-0012-01	81.3	
160-13352-8	N002-SS001-0012-01	85.2	
160-13352-9	N002-SS002-0012-01	74.6	
160-13352-10	N002-SS003-0012-01	79.9	
160-13352-11	N002-SS004-0012-01	75.9	
160-13352-12	N002-SS005-0012-01	82.1	
160-13352-13	N002-SS006-2436-01	78.5	
160-13352-14	N002-TRENCH-0003-01	84.2	
160-13352-15	N003-SS001-1022-01	86.0	
160-13352-16	N003-SS002-2436-01	82.3	
160-13352-17	N003-SS003-1224-01	72.1	
160-13352-17 MS	N003-SS003-1224-01	81.2	
160-13352-17 MSD	N003-SS003-1224-01	71.3	
160-13352-18	N003-SS003-1224-02	80.3	
LCS 160-206252/2-A	Lab Control Sample	83.2	
MB 160-206252/1-A	Method Blank	87.8	

Tracer/Carrier Legend

U-232 = Uranium-232

Method: A-01-R - Isotopic Uranium (Alpha Spectrometry)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Yield (Acceptance Limits)	
		U-232 (30-110)	
160-13352-19	RB-N-150811	86.0	
160-13352-20	RB-N-150812	76.9	
LCS 160-206044/2-A	Lab Control Sample	73.1	
LCSD 160-206044/3-A	Lab Control Sample Dup	75.1	
MB 160-206044/1-A	Method Blank	86.3	

Tracer/Carrier Legend

U-232 = Uranium-232